Opinion of George Cooper, Q.C., Regarding Canadian Government Funding of the Allan Memorial Institute in the 1950's and 1960's

The text of the opinion of George Cooper, Q.C., is available from Communications and Public Affairs, Department of Justice, Ottawa, Ontario, K1A 0H8, (613) 996-7192.

Opinion released with the authorization of the Honourable John C. Crosbie, Minister of Justice and Attorney General of Canada

May 1986

Cat. No. J2-63/1986

ISBN 0-662-54427-7

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OUR FILE:

May 3, 1986

Dear Mr. Crosbie,

Re: Allan Memorial Institute

Officials of your department advised me a few days ago of your intention to make public my opinion transmitted to you on March 7, 1986. Because of my undertaking to those whom I interviewed in the course of preparing my opinion, to the effect that their names would not be publicly linked with particular passages in my opinion without their consent, I thought it best to speak to all those affected.

I am happy to report that in every case, I have received their consent. In the course of reviewing the particular passages with them, I have incorporated a small number of changes in the text of the opinion. All of these changes are of an editorial nature and none of them alter in any way the substance of what I had been told, or my conclusions thereon.

Yours very truly,

George Cooper

Honourable John C. Crosbie,
P.C., Q.C., M.P.,
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OUR FILE: G-1891

March 7, 1986

Dear Mr. Crosbie,

Re: Allan Memorial Institute

I transmit herewith my opinion on this matter.

Upon undertaking this assignment, I and officials of your Department determined that this opinion would be subject to the usual solicitor-client privilege. On this understanding, and following discussions on the point with these officials, I gave assurances of confidentiality on behalf of the Department to all those whom I interviewed for purposes of ascertaining the facts on which my conclusions are based. I express the hope that this undertaking will be fulfilled.

Should there be anything further I can do in connection with this matter, by way of clarification or otherwise, I am of course at your disposal.

Yours very truly,

George Cooper

Honourable John C. Crosbie,
P.C., Q.C., M.P.,
Minister of Justice,
House of Commons,
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Enclosure

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February 26, 1986

The Honourable John Crosbie, P.C. M.P.
Minister of Justice and
Attorney General of Canada
Ottawa, Ontario
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Dear Mr. Crosbie:

You have asked for my opinion on certain matters related to activities carried on at the Allan Memorial Institute ("AMI") in Montreal during the 1950's and 1960's by Dr. D. Ewen Cameron and others, and in particular as to whether in the funding of these activities the Government of Canada did anything or omitted to do anything which might be found to be illegal or improper if an action were brought or a complaint made by one or more former patients at the AMI.

In December, 1980, nine former patients at the AMI brought action against the U.S. Government, claiming damages for injuries suffered by them while under the charge of the AMI and particularly Dr. Cameron. They allege that the Central Intelligence Agency (CIA) funded Dr. Cameron to perform psychiatric "experiments" on them without their consent, resulting in permanent injury. The specific techniques or procedures alleged are massive electro-shocks, psychic driving, drug-induced sleep and the use of controversial chemicals such as lysergic acid diethylamide (LSD). These allegations form the backdrop of publicity and public concern against which my review of the facts underlying this opinion has taken place. The Second Amended Complaint of the nine plaintiffs is attached as Appendix 1. A letter from the plaintiffs' attorney plus enclosures, which sets out the basis of this claim, is attached at Appendix 1A.

As a result of discussions with J.C. Tait, Q.C., Assistant Deputy Minister, Public Law, and M.L. Jewett, Q.C., General Counsel, Constitutional and International Law, I understand you are seeking both an opinion as to the government's potential legal liability, and also an opinion as to whether the government may be under some duty towards the patients of a kind which falls short of legal liability; and, if so, what kind of response might be made by the government to discharge such moral responsibility. This opinion addresses both issues.

My plan will be to address the following points:

(1) the steps I have taken to learn the facts;

(2) conclusions as to what psychiatric procedures were actually used at the AMI under Dr. Cameron and his associates;

(3) the involvement of agencies or departments of the Federal Government in funding the AMI;

(4) the climate of the times during which the work of Dr. Cameron and his associates was carried out;

(5) the personality, character and professional activities of Dr. Cameron, and an assessment of the quality of his work;

(6) a discussion of the ethical considerations surrounding the nature and quality of scientific and medical research and experimentation in the 1950's and early 1960's, both generally and in relation to Dr. Cameron's work, and a comparison with today's standards;

(7) the involvement of the Central Intelligence Agency (CIA);

(8) a discussion of the lawsuits conducted in the Quebec Superior Court in connection with this matter (Orlikow v. The Royal Victoria Hospital and Morrow v. The Royal Victoria Hospital);

(9) a discussion of the legal principles which apply to this case, and conclusions of law;

(10) a discussion of the wider responsibility of the government;

(11) final conclusions.

I have been assisted throughout by Louis B.Z. Davis of the Constitutional and International Law Section of the Department and by Mr. Ron Louisseize, Legal Assistant in the Civil Litigation Section, as well as by members of my firm. The help of all these people has been invaluable. I have also been assisted by Dr. G.L. Nelms, Associate Chief, Research and Development, Department of National Defence; by Dr. Ron Heacock, Director General, Extra-Mural Research Programs Directorate, Health Services and Protection Branch, Department of Health & Welfare; and by Mr. Brian Dickson, Director, Legal Advisory Division, Bureau of Legal Affairs, Department of External Affairs, together with others in each of those Departments. In

particular, I have met with J.H. Taylor, Under-Secretary of State for External Affairs; D.B. Dewar, Deputy Minister of the Department of National Defence; and David Kirkwood, Deputy Minister of the Department of Health and Welfare. From all of these individuals I have received the fullest cooperation.

1. PROCESS: STEPS TAKEN TO LEARN THE FACTS (INTERVIEWS, REVIEW OF FILES, ETC.)

A. Preliminary

A preliminary word on the scope of my inquiries is in order.

In your letter of July 26, 1985 and in Mr. Jewett's letter of July 29, 1985 your instructions made no specific reference to Dr. Cameron. In this opinion I have, however, concentrated on Dr. Cameron for a number of reasons.

First, he was the head of the AMI at all relevant times, and its driving force. It was he more than anyone else who developed the psychiatric procedures now in controversy, and he was clearly the leader in their application to patients.

Second, in the actions of the nine U.S. plaintiffs, two of whom also brought action in Quebec (Mrs. Velma Orlikow and Dr. Mary Morrow), Dr. Cameron appears to be singled out as the "guilty party"; indeed in the Morrow case his estate was named as a defendant.

Third, in the course of reviewing the facts necessary for purposes of this opinion, I have seen considerable material relating to the work of Dr. Cameron's colleagues at the AMI, material that in my opinion is sufficient to give a clear picture of the psychiatric work that was carried on there. In accordance with usual academic practice, a number of colleagues - professors, residents and those from other disciplines - were often associated together in the same piece of research; usually the names of two or more would appear as contributors to the published results. Thus, although I have not made special inquiries about, or searched for all file material held by government departments or by the Public Archives on, each of Dr. Cameron's associates - that task would have taken considerably more time - I have searched high and wide for information on Dr. Cameron; and in so doing, I believe I have a clear, if not an absolutely complete, picture of the work of his associates as well, at least in the relevant subject area.

B. Problems in digging up information 20-40 years old

The events in question began to take place at the AMI over thirty-five years ago. Three important consequences flow from this fact. First, many of the routine administrative files in the two key departments (Health & Welfare and National Defence) have been destroyed in the ordinary course, with the result that I have had to rely a great deal upon the recollection of those who were directly involved at the time. Second, some of those who were directly involved have since died, with the result that the record is necessarily incomplete in so far as it depends upon recollections. Third, many of those still living could not be of assistance on points of detail, simply because their recollections are no longer precise in view of the time that has passed since they were actively involved with the subject.

Nevertheless, I am persuaded that enough factual material has been uncovered, both in direct interviews and from the files that still exist, to allow factual conclusions to be drawn with a high degree of certainty. There is, of course, the possibility that new facts might come to light, either from government file material not yet uncovered, or from individuals now or formerly in the public service who might come forward with new information, but I

consider this possibility to be remote. Consequently, I believe I have seen and heard sufficient to conclude that all of the important facts that could now be known about this subject, and which are in the possession of the Government of Canada or any of its departments, agencies or employees (past or present), are now known and have been taken into account for purposes of this opinion; and that it is unlikely that new facts of strong probative value will later be uncovered.

C. Limitations to my mandate

This conclusion is of course subject (as is the whole of this opinion) to the important qualification that the scope of my inquiries has been limited by the terms of reference stated in both your letter of July 26, 1985 and Mr. Jewett's letter of July 29, 1985. In accordance with that mandate, and apart from consultations with the three independent experts referred to later, I have confined my interviews to people having a past or present connection with the Government. Similarly, I have confined my file search to files in the possession of the Government (except that I have also reviewed the files publicly available in the Quebec Superior Court in the case of Orlikow v. The Royal Victoria Hospital (case no. 500-05-006872-798), and in the Quebec Superior Court (case no. 500-05-738532) and in the Quebec Court of Appeal (case

no. 500-09-001247-782) in the case of Morrow v. The Royal Victoria Hospital). I have not made any inquiries of people who do not have such a connection, nor (except as noted) have I seen any files in the possession of people or institutions other than the Federal Government.

Thus, I have made no enquiries of (for example) former patients or staff at the AMI at the time when Dr. Cameron was there, and it is of course possible that new facts might come to light from that source. (As discussed fully later, I did interview Dr. Robert A. Cleghorn at length and received very valuable information from him; Dr. Cleghorn was a psychiatrist on staff at the AMI, and succeeded Dr. Cameron as Director of the Institute in 1964. I was able to speak to Dr. Cleghorn, not on the basis of his association with the AMI, but because of his association with the Defence Research Board where, for a period prior to 1961, he was Chairman of the Panel on Psychiatric Research of the Medical Advisory Committee of the Defence Research Board.) I have seen no medical records of patients at the Allan. Finally, I have not had access to material from the CIA or other U.S. sources, except as specifically referred to in this opinion.

D. General comments on the interview and file review process

Because of the fact that so much file material has been lost, I felt it important to interview former government employees and also certain people formerly associated with research advisory panels but not in the employ of the Government. I was also given complete freedom by the four Departments involved to speak to those still employed in the public service. As a result, I have personally spoken to all present and former members of the public service still living who had anything substantial to do with any of the Government research grants programs in the mental health field. In every single case, both present and retired members of the public service were willing to talk at length and without reservation to me, and I have taken extensive notes of these conversations. In no case have I detected any element of reserve or lack of cooperation. I have detected no attempt to hide or gloss over any aspect of the questions at issue, and never any attempt to mislead.

I should add that I gave assurances to those whom I interviewed that their comments would not be publicly attributed to them without their consent.

I was also given complete freedom to review all of the files still available at the Departments in question (Justice, External Affairs, Health & Welfare and Defence)

and at the Public Archives of Canada, and this includes files which appeared on the surface to be only marginally relevant and which, on closer examination, proved to yield no information of any probative value. I have completed such reviews. The Department of Veterans Affairs and the Medical Research Council also assisted by reviewing their files and I am satisfied that these bodies did not fund any projects of Dr. Cameron except for one or possibly two projects as discussed in section 3 of this opinion. I did not review any cabinet documents, and I have no reason to believe they would yield any fruitful information.

A list of those whom I interviewed is attached as Appendix 2, and a list of the files which I reviewed is attached as Appendix 3.

E. Expert opinions

I have had the benefit of expert opinions from Dr. Frédéric Grunberg, Professor of Psychiatry at the University of Montreal (and incidentally the current President of the Canadian Psychiatric Association), Dr. Ian McDonald, Dean of Medicine at the University of Saskatchewan, and Dr. Fred Lowy, Dean of Medicine at the University of Toronto. Their expert opinions and curricula vitae are attached as Appendices 4, 5, and 6 respectively.

2. PSYCHIATRIC PROCEDURES IN USE AT THE ALLAN MEMORIAL INSTITUTE FROM 1948-1964

A. General conclusion

It is clear that the techniques and procedures alleged by the nine plaintiffs in the U.S. law suit were in fact used at the AMI, and by Dr. Cameron in particular. That is to say, each of the techniques of Electro Convulsive Therapy (ECT, sometimes known as Electric Shock Therapy), including massive electric shocks ("depatterning"); sleep therapy; partial sensory isolation; psychic driving; and psychopharmacology (drugs) were used. Most important of these was the procedure called by some "Regressive Shock Therapy" (RST), and called by Dr. Cameron "depatterning", which is perhaps the most controversial of all.

In stating this conclusion, it will be appreciated that I am making no judgment as to the accuracy of any particular plaintiff's claim about the use of any one or more of these techniques in his or her case, as to the appropriateness of that technique in relation to that particular plaintiff's illness, or as to whether, in any particular case, the treatment was applied in a proper fashion. In accordance with my mandate, I did not address any of these issues. The point is simply that there is no doubt that Dr. Cameron used all of these techniques at various times, and it is certainly within the realm of

possibility that the plaintiffs received all the treatments they allege they have received.

The psychiatric treatments administered at the Allan at various times during the 1940's, 1950's and 1960's may for present purposes be divided into two categories:

(1) those in use elsewhere in Canada and the world; these included ECT (electro convulsive therapy, sometimes called electroshock therapy), insulin coma shock therapy, sleep therapy and drugs (including lysergic acid diethylamide, or LSD); and

(2) those in use at the Allan and at a few centres in some other countries (but not elsewhere in Canada); these included depatterning, psychic driving and sensory isolation.

None of the foregoing psychiatric procedures were pioneered at the Allan, and none were unique to it, though the procedures of psychic driving and depatterning were developed further and continued longer at the Allan than elsewhere. Moreover, the use in combination of the techniques of depatterning, psychic driving, sensory isolation, sleep therapy and drugs appears to be unique to the Allan.

A general discussion of the theoretical basis for these treatments follows in paragraph B., and a description of the actual procedures involved follows at paragraph C. Formal descriptions are found in articles published by Dr. Cameron in the scientific literature and attached as Appendices 7 to 17 inclusive.

B. The intellectual and scientific basis for the procedures of "depatterning" and psychic driving

Dr. Cameron held the view that mental illness was the consequence of the patient's having learned over the years "incorrect" ways of responding to the world around him or her.

The "brain pathways" had thus developed through repetition a set of "learned responses" that were not socially acceptable and resulted in the patient's being classified as mentally ill.

It had been observed over many years by psychiatrists that persons who were subject to convulsions of the brain did not become mentally ill. Examples are those who suffer from epileptic convulsions, and those who suffer from insulin coma. It was speculated that these naturally occurring convulsions somehow cleared the "brain pathways" and thus eliminated these "incorrect" thought processes. From these observations it was deduced that if convulsions could be applied artificially to mentally ill patients,

the "brain pathways" would be broken up and the patient's illness would be relieved. This was the fundamental idea behind ECT, insulin coma shock therapy and other therapies designed to induce convulsions.

Dr. Cameron took hold of this idea and developed it much further than psychiatrists in the mainstream of European and North American practice. His idea was to break up the brain pathways through the highly disruptive application of massive electroshocks, many times the number of shocks in a normal ECT treatment - two times a day, as opposed to three times a week, for example - until the patient's brain had been "depatterned"; i.e. (in the case of psychotic patients) until all schizophrenic symptoms were lost, as well as other aspects of memory. After this had occurred, the idea was then to "re-pattern" the brain by trying to instill new and "correct" patterns of thinking in the patient's mind.

Under Cameron's theory, one might compare the patient's brain to an old-fashioned telephone switchboard, in which all the wires were plugged into the wrong holes. In depatterning, all the wires were pulled out; in repatterning, the aim was to plug all the wires back into the right holes.

A second theoretical basis upon which these procedures rested was the idea that serious mental illness was the result of poor mothering, an idea developed in the U.K. in the 1930's and 1940's. If a child could be "re-mothered" by a procedure known as "anaclitic therapy", it could be cured of the illness. Dr. Cameron in effect applied this idea to adults. Through "depatterning", he had reduced the patient's mind to a childlike state; through re-patterning, his idea was to "remother" the patient in the protected and kindly environment of the hospital. Psychic driving was one of the techniques of remothering.

Dr. Cameron used these two procedures of depatterning and psychic driving in treating both psychotic patients (schizophrenics) and psycho-neurotic patients. It is important to note that, with respect to selection of patients in the psychoneurotic category, he said:

> "With regard to selection, we select primarily chronic psychoneurotic patients in whom all previous forms of therapy have failed." (Appendix 14, p. 210) (emphasis in original)
>
> "The patients selected are almost entirely those suffering from extremely long-term and intractable psychoneurotic conditions." (Appendix 18, p. 5)

C. The procedures involved

Following is a brief description of these treatments, in their most highly developed form and taken in combination as they sometimes were.

(1) Depatterning and prolonged sleep

In depatterning, the patient would be subjected to massive electroshock treatments - sometimes up to twenty or thirty times as intense as the "normal" course of electro convulsive therapy (ECT) treatments. At the end of up to 30 days of treatment - up to 60 treatments at the rate of two per day - the patient's mind would be more or less in a childlike and unconcerned state.

In preparation for the treatment, the patient would be put into a state of prolonged sleep for a period of about ten days, using various drugs. At that point, the massive electroshock therapy would begin, the patient being maintained on continuous sleep throughout. Somewhere between the thirtieth and sixtieth day of sleep, and after 30 to 60 electroshock treatments, depatterning would be complete. Depatterning was then maintained for about another week, with electroshocks being reduced to three per week.

Gradually the treatments were reduced to one a week. Then followed a period of reorganization, when the patient came back from the "third stage", through the "second stage", up to the "first stage" of depatterning. During this period the patient would undergo considerable anxiety; to control this, the drugs chlorpromazine (Largactil) and sodium amytal were administered.

The purpose of this procedure, in the case of psycho-neurotic patients, was to prepare them for a course of "psychic driving".

(2) Sensory isolation

An alternative method of preparing patients for psychic driving was to place them in situations of "sensory isolation". This involved depriving them of incoming sensory stimulation. This procedure grew out of work carried out in the early 1950's by Dr. Donald O. Hebb, a psychologist at McGill, on behalf of the Canadian Defence Research Board. Cameron's work with sensory isolation was not a continuation of the Hebb work (as suggested by some of the media coverage), but was intellectually connected with it. Hebb's work is discussed more fully in section 3 of this opinion.

Patients would be placed under conditions of sensory deprivation for a matter of days, in one case as long as sixteen days. In some cases, patients who underwent sensory deprivation without effect were subsequently placed under sleep and shock therapy as described above.

(3) Psychic driving

Following a course of sensory deprivation, or of sleep and shock therapy, or both, the patient would then undergo the "psychic driving" procedure. This consisted of messages played on tape recorders and repeated thousands of times to the patients by means of pillow microphones, stenographic headphones, and other methods. The idea was first of all to deliver a negative signal, designed to get the patient to confront his or her inadequacies. (For example: "Gertrude, you don't get along with people. You have never gotten along with your mother...You have always felt inadequate and have been jealous of other people"...). This lasted for a period of about ten days, after which positive messages would be given for about another 10 days. (For example: "Gertrude, you want to be free like other women. You are trying to give up manipulating people by your complaints ... You want other people to like you ...You want to have confidence.")

The content of the messages was usually determined through psychological interviews conducted with the patient before the treatment began ("autopsychic driving"), sometimes while under the influence of disinhibiting drugs. In some treatments the messages were based on material developed by the psychiatrist rather than the patient ("heteropsychic driving").

Psychic driving would take place for continuous periods of up to sixteen hours per day. Taken together, the positive and negative messages might be repeated up to half a million times.

Drugs were used throughout the procedure. Barbiturates, etc., were used during the period of prolonged sleep. As the patient emerged from depatterning, the anxiety that attended the process was relieved by heavy doses of Largactyl and sodium amytal. During the psychic driving procedure, in order to keep the patient receptive to the messages, injections of curare and beeswax would be given. LSD was sometimes also administered.

Throughout the procedure, and for a period of up to three years afterwards, a patient would receive intensive personal care, both in and out of hospital as required, from the hospital staff including social workers, psychiatrists, psychologists and nurses. Further electro-shocks were administered an average of 65 times during this three year period.

(4) Psychoneurotic and schizophrenic patients

These procedures were used in treating both psychoneurotic and schizophrenic illnesses, although the psychic driving technique appears to have been used chiefly with psychoneurotic patients. Psychic driving appears not to

have been generally used with schizophrenics, who were repatterned by hospital staff; they spent weeks bringing them back to the point where they could lead something of a normal life. Prolonged memory deficit was a particularly serious problem for both categories of patient.

(5) Procedures highly intrusive and intensive

It will be appreciated that RST, or depatterning, was a highly intensive and intrusive procedure. It was deliberately aimed at "breaking up the pathways of the brain" and thus reducing the brain to an almost infantile state. In fact, Dr. Cameron describes the three stages of depatterning as follows:

> "In the first stage of disturbance of the space-time image, there are marked memory deficits but it is possible for the individual to maintain a space-time image. In other words, he knows where he is, how long he has been there and how he got there. In the second stage, the patient has lost his space-time image, but clearly feels that there should be one. He feels anxious and concerned because he cannot tell where he is and how he got there. In the third stage, there is not only a loss of the space-time image but loss of all feeling that should be present. During this stage the patient may show a variety of other phenomena, such as loss of a second language or all knowledge of his marital status. In more advanced forms, he may be unable to walk without support, to feed himself, and he may show double incontinence. At this stage all schizophrenic symptomatology is absent. His communications are brief and rarely spontaneous, his replies to questions are in no way conditioned by recollections of the past or by anticipations of the future. He is completely

> free from all emotional disturbance save for a customary mild euphoria. He lives, as it were, in a very narrow segment of time and space. All aspects of his memorial function are severely disturbed. He cannot well record what is going on around him. He cannot retrieve data from the past. Recognition or cue memory is seriously interfered with and his retention span is extremely limited."
> (Appendix 15, p.67).(emphasis added)

Other psychiatrists, whose work in RST preceded Dr. Cameron's and formed the basis for the work at the Allan, described the state of the patient's mind after RST in these words (taken from the same article at p. 66):

> "Kennedy and Ancell described their patients as being brought to the level of 4-year-old children. Rothschild and his co-workers referred to certain of their organically disorganized patients as being unable to swallow but able to suck fluid from a feeding bottle. Glueck reported that his patients were like helpless infants. They were incontinent in bladder and bowel and required spoon feeding as well as tube feeding."

It will be appreciated that these graphic descriptions of the effects of massive electroshock therapy appeared in articles published in the open scientific literature.

D. <u>The problem of loss of memory</u>

It is well recognized by psychiatrists that simple ECT causes in many patients the undesired side effect of "memory deficit". For example, a patient after undergoing one treatment (a convulsion for perhaps one minute, followed by a half hour or hour of sleep) might temporarily

forget how to put on and tie shoes. However, after one treatment, memory loss is transitory only. After a normal course of ECT - say twelve treatments over two or three weeks - memory might be lost for a couple of weeks or so; on rare occasions, longer. Hospital personnel are, of course, trained to help patients put their shoes on, etc., in the interval during which the memory is recovering.

After depatterning, prolonged memory loss was not at all unusual, simply because of the massive nature of the electroshock applied. All schizophrenic symptoms would be lost, as well as other aspects of memory. The resulting amnesia was said by Dr. Cameron to be "differential", in that amnesia for manifestations of schizophrenia would remain, while recollections of ordinary life happenings would return during the repatterning process.

E. Dr. Cameron's assessment of depatterning

Did depatterning work? Dr. Cameron certainly believed it did . In his published article on schizophrenic patients, Appendix 15, p. 17, he said:

> "With regard to efficiency, the first question to ask is, 'Does it accomplish what is intended?' The answer is quite definitely 'Yes'. It has resulted in a considerable increase in efficiency over the method of multiple shock therapy as introduced by Bini and Milligan and modified by subsequent workers. It represents, moreover, a noteworthy advance over insulin treatment and over the chemical therapies. Above all things, the readmission rate is greatly reduced. At the same time, we must point to the fact that it calls for a most considerable expenditure in time and effort and it requires the development of a team of workers who are highly skilled. (emphasis added)
>
> "With regard to the detrimental side effects, the most serious is of course the period of complete amnesia. We are working upon methods to reduce this and it is proper to say that while it is a source of trouble and annoyance to the patient during the first six months or so following discharge, a scaffolding of subsequent memories consisting in what he has been told of events which happened during the amnestic period gradually takes form."

The underlined passage is important, for reasons discussed in section 5 of this opinion.

It is well to bear in mind that Cameron was not the first, nor was he the only, psychiatrist to use depatterning techniques. Massive electric shock methods were apparently introduced by Cerletti, Bini and Milligan, for psychoneurotic patients, and reported in the medical literature as early as 1946. The method was transferred to the treatment of schizophrenia by Kennedy and Ancell, who labelled the treatment (misleadingly, according to Cameron) "Regressive Shock Therapy" and reported on it as early as 1948. Cameron cites three other groups who used the technique, reported in the literature in 1950, 1951 and 1957.

It was in 1955 that Cameron himself decided, in his words, to "develop the potentialities of this procedure". As stated above he used the procedure to treat both psychoneurotics (see the application to the Society for the Investigation of Human Ecology, Appendix 18, p.5 and the articles at Appendices 11, p. 985 and 12, p. 744) and schizophrenics (see Appendix 15).

F. Psychic Driving - further comments, and Dr. Cameron's assessment

Although sometimes used in conjunction with depatterning treatments, psychic driving was used in other situations as well. As explained, the technique consisted of the repetition of tape recorded messages, first of a negative kind designed to make the patient face his/her problem, and later of a positive kind designed to give the patient a new self image. During the "positive" period, the hospital staff would work with the patients to encourage them to put the new behavioural patterns into practice.

Dr. Cameron considered that:

> "Our best results have been with chronic psychoneurotics - and otherwise untreatable - patients, usually with a long standing character neurosis, with an anxiety hysteria or an anxiety

neurosis. With these patients our results have been increasingly encouraging, and we now consider that this is the procedure of our choice when faced with such a case." (Appendix 13, p. 107) (emphasis added)

G. The use of drugs - further comments

Drugs used included barbiturates (such as sodium amytal), amphetamines (such as desoxyn) and hallucinogenic drugs such as LSD-25 or mescaline. In addition, as part of the procedure preparatory to administering massive electro-shock therapy, small doses of curare were administered to produce a state of relative immobility to maintain the patient in the area of repetition. All these drugs were in common use by psychiatrists in Canada in the 1950's and early 1960's.

Because of the public attention that has been focused on LSD, I have added Appendix 19 which will illustrate just how widespread was its use.

H. Conclusions on the theoretical basis for and the efficacy of Dr. Cameron's procedures

On the theoretical side, it is now clear to psychiatrists generally that Cameron's depatterning, psychic driving and related procedures were not based on sound principles of science or medicine. Psychiatrists no longer accept the epileptic/schizophrenia dichotomy; and while there may be something in the idea that mental illness is the result of

poor mothering, Dr. Cameron pushed the idea much too far in exploring how it might apply to adults. Even when judged by the knowledge and standards of the day, it is now seen that the theoretical foundation for Dr. Cameron's work was very weak.

On the practical side, and judging by the standards of today, most psychiatrists would conclude that depatterning was a failure not only in terms of its efficacy as a medical treatment, but also in that it represented a level of assault on the brain that was not justifiable even by the standards of the time and even in light of the rather rudimentary level of scientific and medical knowledge of those days compared to today.

These conclusions are, however, evident only with the benefit of hindsight; and no medical doctor I spoke to was prepared to state that Cameron's depatterning procedures were conducted in disregard of the limits of acceptable medical practice at the time, or otherwise than out of desire to benefit the patients involved. These points will be elaborated in sections 5 and 6 of this opinion, but for the moment it should be noted that some doctors felt that, as a man driven to try to find solutions to the problems of mental illness, both in general and for particular patients, Dr. Cameron may have allowed himself subconsciously or unintentionally to go

beyond those bounds with respect to some particular patients; but this is of course speculation and, to repeat, none of these doctors were prepared to attribute any improper motive.

At the same time some individual doctors had doubts about the efficacy of the depatterning and psychic driving procedures during Dr. Cameron's tenure at the Allan; in fact these procedures were not free from controversy even within the Allan itself. However, these doubts took the form of "mutterings". Although everyone at the Allan, and most psychiatrists in Canada, knew about Cameron's work, and it was fully described in the open scientific literature for all to see, no one spoke out publicly against it. It is also worthy of note that Cameron's treatments were not used by his colleagues in psychiatric practice in other hospitals in Montreal, including those within the McGill teaching hospital system, in spite of Cameron's position as professor of psychiatry. They tolerated his techniques, but they did not adopt them. A discussion of these contemporary doubts will be found in section 5 of this opinion.

3. INVOLVEMENT OF AGENCIES OR DEPARTMENTS OF THE GOVERNMENT OF CANADA IN FUNDING THE AMI

Three agencies of the Government of Canada funded Dr. Cameron for various projects: the National Research Council (NRC) as predecessor to the Medical Research Council (MRC), the Defence Research Board (DRB), and the Department of National Health and Welfare (H&W). The DRB also funded other relevant research at McGill in the field of sensory deprivation. The activities of these agencies are discussed in turn.

A. National Research Council (NRC) as predecessor to the Medical Research Council (MRC)

The National Research Council, through its Associate Committee on Medical Research, made a grant to Dr. Cameron in 1944-1946 to study "psychological aspects of return to industrial civilian life" after the World War II. The grant number was M.P. 38, and the grant amounted to $3,000 for each of the two years.

Clearly this grant is not relevant to the matters under review in this opinion.

I have discovered a list (attached at Appendix 19A) of NRC Grants-in-aid for psychiatry, showing two other grants to Dr. Cameron. They are:

(a) No. 290 - Behavioural Laboratory - $4,197.00;

(b) No. 217 - Reactions of Civilians to Community Disasters - $650.00.

The first is an amount identical to the funding during 1950/51 from Health and Welfare to Dr. Cameron for Health and Welfare's Project No. 604-5-14, "Support for a Behavioural Laboratory" (see later). I can find no other information on NRC Project No. 290. From the figures, I assume that either NRC gave a matching grant during the one year in question, or Health and Welfare simply paid the money on N.R.C.'s behalf. Nothing of significance here turns on this grant.

As for No. 217, Reactions of Civilians to Community Disasters, this obviously represents a grant supplementary to DRB's grant No. 65 to Cameron (see later). Again, there is no further information in the file, and again, nothing of relevance here turns on this grant.

B. Defence Research Board (DRB)

(1) Introduction

The DRB was founded in 1946 as the research arm of the Department of National Defence. Dr. Omond Solandt was the

first Chairman, and he remained Chairman until 1957 when he was succeeded by Adam Hartley Zimmerman, Sr. (now deceased). The mandate of the DRB was to engage directly in research of its own, to contract out for specific items of research work, and to make grants to independent researchers, in areas of particular application to the military. The DRB was not to conduct basic scientific research, but rather applied research. Included in this was research in psychiatry and psychology, primarily to develop methods of testing the capabilities of potential recruits and serving personnel, to determine their suitability to withstand the stress of combat, and to study the effect of stress generally in the trying conditions of war and other emergencies.

(2) The Korean War and "brainwashing"

In the early 1950's there was great concern in the senior ranks of the military in Canada, United States and the United Kingdom about the new "brainwashing" techniques then being used by communist forces during the Korean War. Troops from these three countries who were captured during battle were sometimes subjected to these techniques and as a result were forced to make public statements, or "confessions", in which they renounced the beliefs and values of their own country and then espoused publicly those of the adversary. In certain cases there appeared

to be no physical coercion which could have accounted for this behaviour, and often the confessions seemed to be quite voluntary and genuine. Reports came back as to the way in which these confessions were extracted; troops had been subjected to long spells of isolation, followed by periods of indoctrination to the new beliefs. One such report is attached as Appendix 20. These techniques gave rise to real concern on the part of the western allies that the communists had discovered some new way of controlling the mind. They concluded that it was essential to find out everything that could be learned about these methods, so that our troops could be told in advance of communist techniques and, to the extent possible, trained to withstand brainwashing.

A high-level meeting took place at the Ritz Carlton Hotel in Montreal on June 1, 1951 to discuss the problem. Present were representatives of the scientific research establishments of the Canadian, the U.S. and the U.K. military. Dr. Solandt was Canada's chief representative. Dr. Donald O. Hebb, a psychologist from McGill University, was also present and proposed to the group that experiments in "sensory deprivation" might be carried out to determine whether something of the communists' brainwashing techniques might be learned. Attached at Appendix 21 is a copy of the minutes of the June 1, 1951 meeting; the handwritten note appended to these minutes (found

separately in DRB files) suggests that Commander Williams, one of those in attendance, was with the CIA.

(3) Sensory deprivation experiments of Dr. Donald O. Hebb

Shortly after the meeting of June 1, 1951, the DRB entered into a contract (designated the X-38 Project) with Dr. Hebb to conduct these "sensory deprivation experiments". The purpose of the work was to establish whether indeed prolonged periods of sensory deprivation reduces the subject's resistance to accepting new beliefs contrary to beliefs previously held. The work continued from 1951 to 1955 and involved some 63 paid volunteers, students from McGill University.

Dr. Hebb's practice was to place his subjects in a small cubicle in which external stimulae were kept to a minimum. The forearms would be covered with cardboard tubing, cotton wool would cover the hands, glasses would be worn which permitted only diffused light to enter, and there would be no auditory stimulation. The student would spend as much time in this situation as could reasonably be accepted, and was free to leave at any time. While in this state of sensory deprivation, the subject would be offered the opportunity of hearing material distasteful to him or her, through gramophone recordings. An extract from some of Hebb's earliest work will illuminate the point:

> "Three gramophone recordings were available to the subject, all with material the subject found unpleasant at the beginning of the experiment: (1) four repetitions of 16 bars from "Home on the Range"; (2) a 5-min. extract from a harsh atonal piece of music; and (3) an excerpt from an essay instructing and exhorting young children on the methods and desirability of attaining purity of soul. S could signal for any of these three. He signalled 42 times altogether, and spent a total time, listening to this material, of 2 hours and 21 minutes out of his 8½ waking hours. He was mostly unselective in his choice, usually requesting all three, one after another, and then, after a pause, going through them again. The only sign of preference was for (1) repeated bars from "Home on the Range". This subject is a college student, in the superior adult class intellectually, and this is not the kind of material that would be in any way entertaining to him. As noted above, he disliked the material to begin with, and reported that he still disliked it when the experiment was over."

Alternatively, the researcher might feed to the student a line of "propaganda" contrary to his or her own beliefs, to see if he could get the student to espouse that belief. The beliefs in question were quite innocuous - for example, a belief in the biblical account of creation, or a teetotaller's view. At Appendix 22 are copies of some DRB file materials on this research.

Although the work carried out by Dr. Hebb was originally classified, it has long since been declassified. Throughout most of the period when the work was being done, Dr. Hebb himself repeatedly implored the DRB to allow him to publish it. He also believed that failure to do so would result in the public getting the wrong impression when the

material did eventually leak out, as it inevitably would. Attached at Appendix 23 are some file materials, news clippings and correspondence which make the point well.

The conclusions reached by Dr. Hebb and his associates may be simply stated. A changing sensory environment is absolutely essential to the good health of the mind. Without it, the brain ceases to function in an adequate way, and abnormalities of behaviour develop; for example, the subject quickly begins to hallucinate. By "softening up" a prisoner through the use of sensory isolation techniques, a captor is indeed able to bring about a state of mind in which the prisoner is receptive to the implantation of ideas contrary to previously held beliefs. At Appendix 24 is a three page summary of these results prepared by DRB for Treasury Board on August 3, 1954.

Dr. Hebb, who died in August of 1985, was Canada's foremost psychologist, and the author of the seminal textbook, The Organization of Behaviour (1949). He was regarded as a very fine scientist and a humane and thoughtful person. He conducted his research with the highest regard for the welfare of the volunteer students. I have heard no suggestion of any impropriety in the conduct of his research. One person told me of an unconfirmed report that one student developed a form of mental illness following the experiment, but the suggestion is that the

illness was incipient in any event, and would have resulted regardless of Dr. Hebb's experiments.

As predicted by Dr. Hebb, his work did eventually leak out and become the subject of adverse press comment. As a result, Dr. Solandt was asked for an explanation, and then required to phase out the research. Appendices 23 and 24 give the background to this aspect of the matter.

(4) Connection between Hebb's work and Cameron's work

Dr. Hebb's work is mentioned in this opinion because some media reports, and some members of the public who have written to the government to express concern about Dr. Cameron's work, have referred to Hebb's work evidently in the belief that there was a close connection between the work of the two men. Dr. Cameron, being in close physical proximity to Dr. Hebb, was, of course, aware of Hebb's work and was himself interested in sensory deprivation from a psychiatric perspective. This is made clear in Hebb's letter of January 1, 1953 in Appendix 23. So were others at the AMI, as is shown by the letter from Dr. Cormier attached as Appendix 25. However, as stated earlier, the work of Drs. Cameron and Hebb are connected only in an intellectual sense; Cameron's work was not at all a continuation or an elaboration of Hebb's work. Cameron was often stimulated by the work of other

scientists in related or even unrelated fields, and sensory deprivation was just one of the new research areas in which he took an interest.

Hebb himself was contemptuous of Dr. Cameron's work in the field of sensory deprivation (as well as his work in psychic driving), so I was told by a number of the people I interviewed. In Hebb's opinion, Dr. Cameron did not have the necessary background in the principles and techniques of scientific investigation to understand properly how (if at all) Hebb's work in sensory isolation could be utilized in the treatment of patients. The question of Dr. Cameron's abilities as a research scientist is discussed fully in section 5 of this opinion.

(5) DRB funding of projects at the Allan

The DRB funded two research projects of Dr. Cameron. However, neither of these projects were related to the treatment of mental patients. The two projects in question (DRB grant Nos. 65 and 172 respectively) were entitled "Management of Fear and Anxiety by Civilians in the Event of a Community Disaster" (1948-1951) and "Behavioural Problems in the Adaptation of White Man to the Arctic". For an important reason discussed in section 5 of this opinion, the Chairman of the DRB, Dr. Solandt,

ensured that Cameron made no applications to the DRB for work in the area of psychiatric research dealing with patients.

The DRB funded a considerable number of other research projects at the Allan, projects conducted by associates of Dr. Cameron. I have coincidentally examined quite a lot of file material relating to these projects; none of it bears on the issues under review in this opinion. I have not considered it necessary to look further for DRB funding of psychiatric research involving patients at the Allan, for two reasons: first, in so far as Dr. Cameron is concerned, as mentioned above the DRB at Dr. Solandt's direction declined to consider any application that might be made; second, in so far as others at the Allan are concerned, I have no reason to believe that they would apply for, or receive, grants in the fields of activity under review here (namely depatterning, psychic driving etc.), which were peculiarly Dr. Cameron's fields.

C. Department of National Health and Welfare ("H&W")

(1) Introduction

In 1948 the federal government established the National Health Grants program to provide funds for health care in ten (later, thirteen) health areas. One of these was the

Mental Health Grant. Research grants made to the Allan by H&W during the period under review (from 1948 to 1964, when Dr. Cameron left the Allan) were made under this Mental Health Grant.

The background of the National Health Grants program is discussed in section 4 of this opinion.

(2) The form and manner of applying for a grant under the Mental Health Grant

Throughout the period with which we are concerned, the manner in which grant applications under the Mental Health Grant were handled was as follows (see Appendix 26 for various departmental memoranda and a sample application form):

(a) The institution (e.g. the AMI) would make an application in the form required by H&W, and then submit the application to the provincial authorities.

(b) The provincial authorities would then signify their approval of the application by forwarding it to H&W in Ottawa.

(c) H&W officials would review the application in a preliminary way to satisfy themselves generally as to the scientific and medical adequacy of the proposed research, and to ensure that all formalities had been attended to.

(d) The application would then be referred to two outside experts in the particular field of the proposed research. These experts would give detailed written commentary back to the Department. The comments would at all times remain anonymous.

(e) The Research Subcommittee of the Mental Health Advisory Committee would review each application to ensure its scientific and medical adequacy. The Mental Health Advisory Committee numbered about twenty. It was composed of experts drawn from outside the public service and involved in the disciplines of psychiatry, psychology and related fields. People from within the Department would sit as chairman and secretary of the committee to provide the necessary liaison. The committee therefore acted as a form of peer review.

(f) The Subcommittee would report its recommendations to the full Advisory Committee, who would then report to departmental officials.

(g) Departmental officials would then recommend the grants to the Minister, who would then send his approval back to the province.

(h) The provincial officials would then approve the grant directly to the institution.

(3) Grants to the Allan Memorial Institute

I turn now to discuss the grants for psychiatric research made under the Mental Health Grant to the Allan Memorial Institute and to Dr. Cameron.

In early 1985, the Department of Health and Welfare received an access to information request for "All letters and reports between 1950-64 relating to Dr. Cameron's and Allan Memorial Hospital's experiments in regards to project MK Ultra, Human Ecology, Brainwashing, and any letters and reports sent to the Central Intelligence Agency (CIA), USA". In answering, the Department consulted its master index, which lists nine psychiatric research pro-

jects for which Dr. Cameron is named as principal investigator. Total funds for these nine projects amounted to $495,444.41; the nine projects are listed in Appendix 27. In addition to these nine projects, I have identified a tenth project, No. 604-5-433, which began in Dr. Cameron's name and finished in 1965 in the name of a Dr. Davis, Cameron having by then retired. This project is entitled "The Influence of Psychotropic Drugs upon Cerebral Responses to Peripheral Stimulation in Man".

I have reviewed files on eight of these ten projects. (No files exist for the other two, Nos. 604-5-104 and 604-5-108, but from their titles as given in Appendix 27 it is apparent that they are not relevant here.) Of these eight, it appears on examination that Dr. Cameron was the principal investigator in only four; in fact, not only was he not the principal investigator in the other projects (contrary to the indication in the H&W master index), but his name is not even mentioned in the project files still available. It is speculated that, as head of the Allan, he signed the original project applications although not himself a participant.

Of the four projects in which Cameron was in fact principal investigator, only two are relevant here (the other two are No.604-5-76, "A Study of the Effects of Nucleic Acid Upon Memory Impairment in the Aged", and No. 604-5-433, referred to above). The two relevant files are:

(a) Project No.604-5-14 (1950-1954; $17,875.00)
Under this project, entitled "Support for a Behavioural Laboratory", a number of experiments were planned. One was to test memory and learning impairment due to individual and cumulative electric shock. Another was to film patients against a checkered backdrop before and after ECT treatment, to see if any differences in physical movements could be detected. A third was to study the effects of sensory isolation. A fourth was to investigate psychic driving techniques in various situations: while the patient was under hypnosis, in continuous sleep, and when the patient's resistance was lowered using the isolation techniques of Dr. Hebb. The final report to H&W is reproduced at Appendix 28.

(b) Project No.604-5-432 (1961-1964; $51,860.00)
This project is entitled "Study of Factors which Promote or Retard Personality Change in Individuals Exposed to Prolonged Repetition of Verbal Signals"; i.e. psychic driving. Copies of the summary and final report are attached at Appendix 29. This

study gave rise to five published papers, four of which are reproduced at Appendices 13, 14, 16 and 17.

It will be seen that both these projects had to do with psychic driving, used in combination with the procedures of depatterning, sleep therapy and drugs. As will be seen in section 7, these were also the subjects of investigation in the research work carried out by Cameron with CIA funds.

A further word on one of the apparently unrelated projects, No. 604-5-13, "Research Studies on EEG and Electrophysiology", is in order. This was an extensive project conducted at the Allan primarily by Dr. Lloyd Hisey, Psychiatrist in Charge, Electroencephalographic and Electrophysiological Centre (1950-1952) and his successor as of July 1, 1952, Dr. Charles Shagass. Much of this work, of which there are extensive reports published in the scientific literature, was supported by both H&W and DRB. Although these studies deal with specific aspects of psychiatric research, none of them bear directly on the topics of depatterning and psychic driving. The work did, however, cover topics such as photic stimulation (the use

of strobe lights)*, drug induced sleep and studies of the effects of electroshock (see Appendix 30).

Interestingly enough, the Society for the Investigation of Human Ecology (SIHE), the CIA "cover organization" (see section 7 of this opinion) was also interested in Project No.604-5-74, "A Study of Ultraconceptual Communication", a 1959-61 study under the direction of Leonard Rubenstein of the Allan (see Appendix 31). (Rubenstein was a collaborator with Cameron on the SIHE project on psychic driving under the CIA's code name "MK Ultra Subproject 68", discussed in detail later). I have seen no suggestion that the SIHE provided actual financing for this particular project, although it is conceivable that the CIA may have been interested in the subject matter of the project, dealing as it did with an examination of the ways in which the voice can communicate information on both a verbal and a non-verbal level, and can also convey feelings either consciously or unconsciously which are either allied to the verbal communication or reflect the speaker's emotional disposition. In any event, this project is not relevant to the subject matter under review in this opinion.

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*Strobe lights, when flashed on and off at certain frequencies, can bring on convulsion-like effects; thus it was thought that the technique could assist in clearing the "brain pathways".

In addition to these ten projects, there were of course many other grants made to other researchers associated with the AMI. Although I have not reviewed the files relating to these grants - indeed, to do so would have taken considerably more time and would have entailed a considerable enlargement of my mandate - I have reviewed H&W's list of projects funded between 1948 and 1963, and I have no reason to think that any of them have a bearing on the subject matter of this review.

(4) The method of dealing with Dr. Cameron's grant applications

Were Dr. Cameron's grant applications handled by the Department of National Health and Welfare in the same way as other applications?

A number of people I interviewed had been present at meetings of the Research Sub-Committee of the Mental Health Advisory Committee and recalled the fact that Cameron had indeed made application to the Mental Health Division for grants. However, none of them had any recollection of the particulars of these applications or of the ensuing grants. All those to whom I spoke advised that Dr. Cameron's applications would have been treated in the normal way; had this not been the case, they would have remembered the fact.

At the same time, it was recognized by those I interviewed that Cameron was looked upon as the doyen of Canadian psychiatrists. In the view of many of them, Dr. Cameron's pre-eminence in his field, added to his forceful and aggressive personality, may well have resulted in a certain deference being shown to his applications by those whose task it was to review them. There is no suggestion that anyone shirked responsibility and let pass a research project considered to be scientifically or medically unacceptable, nor is there any suggestion that there was not lively debate at the intellectual level when applications were being reviewed; indeed this seems to have been the norm even when applications of eminent people such as Dr. Cameron were being considered. What is suggested is that it is likely that some members of the reviewing groups may have been somewhat reluctant to express doubts, if indeed they had any, about the medical or scientific basis for the procedures under review in the proposal. It is to be emphasized that there is no actual evidence that this occurred; but human nature being what it is, it is in the view of some to whom I spoke reasonable to assume that this kind of deference could occur.

In summary, there is no evidence that the applications of Dr. Cameron and the AMI were treated in any different

manner by the government and its outside consultants than applications from any other quarter.

(5) Progress Monitoring

It was the Mental Health Division's practice to require grantees to submit an annual progress report. In fact, the grants themselves were made on an annual basis, while more often than not the project was intended from the beginning to last for a period of years. It was on the basis of these annual progress reports that the grant for subsequent years was approved by the Mental Health Advisory Committee.

In addition to this, it was the Department's practice to send representatives on occasional visits to the institutions where the work was being carried out; but because health is primarily a matter falling under provincial jurisdiction, departmental officials would ask permission of their provincial counterparts to make the visit. This permission was invariably granted, and certainly in Quebec the work of checking up on ongoing projects was carried out entirely by federal, not provincial, officials. But the point is that the federal government at all times "cleared the way" for the visits

of federal personnel to the grantees' institutions. The visitors would also obtain the permission of the institute itself in advance of the visit; there was no suggestion of "surprise visits". Moreover, the visit was not in the nature of an inspection; it did not constitute a detailed financial, medical or scientific audit. It was simply a matter of the Mental Health Division representative hearing from the investigator about the work that was being conducted under the grant, so as to be in a position to evaluate the annual application for renewal and also to ensure that the grant money was being spent generally on the project for which the grant was intended.

So far as Dr. Cameron and the AMI are concerned, there is no evidence that the annual visits were treated any differently with respect to this institution than any other. Indeed, it is my impression from interviews with former civil servants that visits to the AMI may have been slightly more frequent than to other institutions, possibly because of its pre-eminence, and also because Montreal was considered an agreeable place to visit! This, however, is a matter of impression only; what is clear is that there is no evidence to suggest that the AMI was either ignored, or deliberately made the subject of extra visits.

It may be asked how Canada's research grant system compared to that of other countries. Some scientists certainly held the view that Canadian granting agencies maintained much too close control of its grantees. Dr. Heinz Lehmann, an eminent psychiatrist and head of the Verdun Protestant Hospital in Montreal (now known as the Douglas Hospital Centre), certainly thought so, as is evident from the newspaper clipping at Appendix 32.

(6) Conclusions

In conclusion, it is my opinion that in relation to the structure and operation of its granting procedures, the Department of National Health and Welfare conducted itself at all times in a prudent and professional manner. The practice of careful internal review of all applications, followed by a referral of the applications to two experts in the particular field from outside the Department for detailed and anonymous scrutiny and comment, followed in turn by a review by the panel of qualified outside experts forming the Mental Health Advisory Committee and its Research Sub-Committee, in my opinion demonstrates the good faith and competence of the public servants responsible.

4. THE CLIMATE OF THE TIMES

A. The background to the National Health Grant System

As far back as 1919, Prime Minister Mackenzie King had committed himself and his party to some form of national health program for Canada. However, not until after the Second World War did the idea of a national health program at last appear feasible. The government recognized that great improvements had to be made in the ability of the nation to deliver health care across the country before it could introduce such a program. There were simply not enough facilities or personnel to meet the demands that would arise upon the implementation of such a program, and moreover there were vast regional differences in the quality of health care.

To remedy these deficiencies, the federal government conceived the idea of assisting the provinces in the extension and improvement of services in specific health fields, as a preliminary step towards the later introduction of, first, the hospital insurance plans, and later, national health insurance. In 1948, the government set up the National Health Grants in ten separate fields (later expanded to thirteen), including for example public

health, tuberculosis control, venereal disease, crippled children and cancer. One of these was the Mental Health Grant.

The purpose of the Mental Health Grant was to cover projects of three main types:

(a) to provide services in the community,

(b) to provide more adequate staff and equipment in the mental hospitals and in the psychiatric wards in general hospitals, and

(c) to provide training for personnel needed in mental health work; this was considered to include psychiatric research.

B. Some Background Data

When Prime Minister Mackenzie King announced the Mental Health Grant in the House of Commons on May 14, 1948, he said:

> "Mental Health Care - Parliament will be asked to make provision for a similar grant to the provinces for similar purposes for mental health care amounting initially to $4 million per annum and rising over a period of years to a maximum of $7 million per annum. The seriousness of the problem of mental illness can best be illustrated by reference to the fact that between one-third and one-half of all hospital beds in Canada today are occupied by patients suffering from mental illness." (Emphasis added)

A few other figures from this era are of interest:

- "Mental and nervous diseases account for more illness than cancer, infantile paralysis and tuberculosis combined. At any one time, one out of every 150 adults in the general population is hospitalized because of mental disease is the finding in areas where mental hospital facilities are most nearly adequate (Landis and Page, Mental Health, 1939)."
- "One person in 18 to 20 will spend some part of his lifetime in a mental hospital."
- "One person in 10 of the general population will be incapacitated by some variety of mental disease at some time during his life."
- "There are 50,000 patients in the mental hospitals of Canada. (DBS)"

The foregoing information comes from a memorandum dated January 18, 1949 from departmental officials to the Honourable Paul Martin, Minister of Health (copy attached at Appendix 33). Grants for research came under the heading of "personnel needed in mental health work". The bottleneck in the expansion of mental health services at that time was lack of trained personnel. The goal was to increase considerably the number of psychiatrists, psychologists, social workers, nurses and community workers in the mental health area.

C. <u>The state of psychiatry and the growth in research after 1948</u>

Psychiatry in the late 1940's and early 1950's was just beginning to emerge from the era of the "lunatic asylum".

There was great hope, almost a yearning, on the part of the medical profession, public servants and politicians that some means might be found, through new techniques such as electroshock therapy, insulin coma shock therapy, psychopharmacology, etc., by which we would cure the ill, and at the same time empty the hospitals of a substantial - and costly - proportion of patients. Mental illness was looked upon as one of the last great fields of human suffering to be conquered. Scientists had discovered spectacular new drugs such as sulfa and penicillin to cure the physically ill; was there nothing that could be done for the largest group of all, the mentally ill?

Such were the thoughts of many with whom I spoke during the course of preparing this opinion. It is perhaps no wonder, then, that in conquering mental illness, a field in which so little had been done and so much was left to do, a great sense of urgency permeated the thinking of the times, and gave great impetus to find solutions, and as quickly as possible. And the key to the solution was: research.

In a memorandum by Dr. Charles A. Roberts, M.D., Chief of the Mental Health Division, dated April 8, 1953 (copy attached at Appendix 34), the following appears:

> "When the National Health Grants Programme was initiated, it was recognized that there was a great need for research in the whole field of health ... At the time there was a little research being conducted by people in training and by the staff of Laval University, by the staff of the Department of Psychiatry at McGill University and at the Toronto Psychiatric Hospital. Beyond this, I am unaware of any mental health or psychiatric research being conducted in the country at that time." (Emphasis added)

And, in a report of Dr. Roberts to the Director of Health Insurance Studies, dated August 20, 1953, on the subject of the estimates for the 1954-55 Mental Health Grant, reference is made to the fact that in 1947 little more than $25,000 was spent on research in the field of mental illness in Canada. In 1948, $4,850 was the figure. By 1953, this had increased to $461,626.

Dr. Cameron, the pre-eminent psychiatrist in Canada at the time, was frustrated with the slow pace of progress in developing new psychiatric procedures. He was always looking for a breakthrough; in this he was in tune with the sense of urgency that gripped this period in the development of psychiatry. He was in the vanguard of the thrust for research in an attempt to solve the outstanding problems of mental illness. And as an ambitious professional and an expert "grantsman", he was able to keep himself in the forefront. The newspaper article attached as Appendix 35 gives something of the intensity with which Cameron viewed the cause of psychiatric research.

By the time of the eighth meeting of the Advisory Committee on Mental Health, held February 28 and March 1, 1955, Mental Health Research Grants from the Department had reached about $500,000, out of a total of approximately $1.6 million for research in the whole health field. The mental health share was thus a substantial part of the total, and the trend did not change. By the end of the 1962-63 fiscal year, a total of about $8 million had been spent on mental health research since 1948, out of a total of about $30 million for medical research in all fields.

The tremendous growth in psychiatric research demonstrated by these figures is a clear indicator of how crucially important the public service and the politicians of the day regarded the problems of mental illness, and the sense of urgency with which they and the medical profession were determined to conquer the problem. This sense of urgency was emphatically confirmed to me by the Honourable Paul Martin, Minister of Health in the early years of the National Health Grants program.

Finally, an impression of just how new the field of psychiatry was as a discipline of its own may be gained from the following starting dates for particular programs: University of Edinburgh, 1912; London, 1921; Toronto, 1936; McGill, 1943; American Board of Psychiatric Examiners, 1935; Royal College of Physicians and Surgeons - Psychiatric qualification, 1944.

5. THE PERSONALITY, CHARACTER, AND PROFESSIONAL ACTIVITIES OF DR. D. EWEN CAMERON, AND AN ASSESSMENT OF THE QUALITY OF HIS WORK

A. Personality, character and professional activities

There is attached at Appendix 36 a series of extracts from private papers of Dr. Robert A. Cleghorn, a psychiatrist at the AMI from 1946 to 1970 (when he retired). In 1964, Dr. Cleghorn succeeded Dr. Cameron as head of the AMI. They were thus long-time associates. These extracts, given to me on a strictly confidential basis by Dr. Cleghorn, constitute the best source of direct information I have seen, both as to the character of Dr. Cameron himself and as to the nature and quality of his professional work.

A number of other people I interviewed were acquainted with Cameron; and what follows reflects the views not only of Dr. Cleghorn, but of these other people as well. "Acquainted" is the right word, because it seems no one knew Dr. Cameron very well. He was an intensely shy and private man, in spite of his great organizational abilities and many public activities. For example, despite their long association, Cameron never called Dr. Cleghorn by his first name. The closest he ever got to intimacy was "Doc" - and then only on rare occasions. And Dr. Cleghorn was only once invited (socially) to Cameron's apartment in Montreal. (A U.S. citizen, Cameron's

permanent residence was located at Lake Placid, New York State, just across the Quebec border, and he apparently spent his weekends there.) Nor, it seems, were there others in the work place with whom Cameron allied himself closely. As Dr. Cleghorn points out, there was no "No. 2" at the AMI; and individual psychiatrists were free to pursue their own interests as they wished and on their own.

Dr. Cameron was born in Scotland, the son of a Presbyterian Minister. It seems that the father was an authoritarian figure, somewhat aloof from his son. A number of people I spoke to alluded to this family background as an explanation for a number of facets of Dr. Cameron's own personality: his driving ambition, his resentment of authority figures, his determination to prove himself and his ideas without reference to or intellectual guidance from the work of the great psychiatrists of the past - Freud, Jung, Adler, Meyer, etc.

As a person, he was ruthless, determined, hard-driving, aggressive and domineering, with a strong and forceful personality. He was not a person that anyone would easily or readily stand up to. He was a person much admired, but seldom liked; in some senses, he was almost charismatic.

He was sometimes aloof from his patients and colleagues alike. He seemed not to have the ability to deeply empathize with their problems or their situations.

It is easy to see how such a person could be regarded as the "mad scientist" of some media reports.

However this may be, it is clear that Cameron at the AMI was an extremely ambitious, almost a driven, man. He was motivated by ambition for personal fame as a psychiatrist and as a builder of his profession. He wanted to create, and succeeded in creating, a leading centre for psychiatric training and research. In personal terms, it would seem that he wanted nothing more than to break through the barriers to understanding mental illness that then existed and to make his mark as a world leader in research.

He received extremely good training as a psychiatrist; see Appendix 5, p. 3 and Appendix 36, Part I, pp. 109-110. In terms of his professional associations, he could not have done more. He was the President of the Canadian Psychiatric Association, the American Psychiatric Association (1953), and in 1963 became the founding President of the World Psychiatric Association, an organization largely formed through his own efforts.

He was the author of 104 papers and four books. His reputation in his profession may be gleaned from the retirement and obituary notices in professional journals (Appendix 36A). He died in 1967.

He was motivated to help mankind in his chosen field of psychiatry. While not a warm man in the sense of having close personal associations, those who knew him conclude that there is no question as to his fundamental dedication to the improvement of mankind through medicine.

He was a brilliant administrator and organizer. He took the AMI from a standing start in 1943 to the pinnacle of the huge success and reputation that it enjoyed in the late 1950's and early 1960's. He was a good teacher, dedicated to improving both the quality and number of mental health workers in Canada. When he took over at the AMI in 1943, the country was pitifully short of trained psychiatrists. By the time he retired in 1964, he had built up at McGill Canada's leading centre for the training of psychiatrists - in fact it was one of the largest in the world. Under him, more than 1,000 psychiatrists were trained, and many of these went on to attain great eminence in the psychiatric profession across the country and around the world, in academic and administrative positions and in public and private practice. Throughout his time there, the AMI was a beacon that

attracted to McGill from all over the world gifted students and outstanding professors representing a wide range of psychiatric opinion and practice.

Dr. Cameron was a strong and early advocate of the "open door policy" in the treatment of the mentally ill, a policy that attempted to take psychiatry in the public mind out of the era of the asylum, in which "untreatable lunatics" were locked away more or less forever, into an era of treatment in which mental illness was to be looked upon as just another medical affliction. He regularly held "open houses" at the Allan, to which members of the general public were invited to see the work being done there.

In general, there are two schools within the profession of psychiatry -- the psychoanalytic school (Freud), and the "physical" school that believed mental illness could be explained and cured in physical terms. Cameron was firmly in the latter camp. He did not have a great deal of faith in psychoanalysis. Psychoanalytic procedures were very time-consuming; this was very costly and, more important, meant that the patient suffered longer while waiting to be cured. Cameron's procedures, based on the "physical" approach, were designed to ease the suffering of patients in a shorter time. Cameron's methods did not work. Psychiatry is still searching for methods that will.

However, the fact that in the years since 1964 the physical approach has fallen somewhat out of fashion in favour of the analytical approach, makes it more difficult for psychiatrists and others to look at the problem through 1950's and 1960's eyes (as we must in passing judgment both legal and ethical) rather than through the eyes of the 1980's.

Finally, some background on the relationship among McGill University, the Royal Victoria Hospital (RVH) and the Allan Memorial Institute (AMI) would be helpful. McGill and the RVH are separate legal entities. However, the RVH is associated with McGill in that it is a teaching hospital of the McGill University's Medical Faculty (one of five such hospitals), and people on the hospital's staff hold cross appointments at McGill. The AMI is the psychiatric wing of the RVH and here again, the staff hold cross appointments.

Thus, Dr. Cameron held an appointment as Professor and Chairman of the Department of Psychiatry in the Faculty of Medicine at McGill University. He was also Chief of Psychiatry at the RVH, and at the same time Director of the AMI. He received a salary from McGill; in addition he obtained income from private patients. However, since the AMI was the psychiatric wing of the RVH, in medical matters he was responsible to the RVH.

B. An assessment of Cameron's abilities as a research scientist

(1) General conclusion

Dr. Cameron was not a good scientist. By this I mean, skilled as he might have been in medicine in general and in psychiatry in particular, he was not a sound practitioner of the art or skill of scientific research. Like many medical doctors of the day, especially psychiatrists, he did not have a good understanding of basic scientific methods. He would not plan his research in a proper scientific way, with clear goals in mind, with proper controls against which the results of his work could be measured, and with sufficient follow-up after the procedures had been completed to see whether the results held up over time. Like many medical doctors, his analysis of the efficacy of a particular treatment would sometimes not go much further than the observation that "the patient seems better today". Dr. J.W. Fisher, a research scientist with a Ph.D. in virology, in about 1952 wrote a draft critique (undated) on this subject while he was employed as an officer in the Mental Health Division. In it, he examined all of the Mental Health Research Grant applications and progress reports, listing their defects from the point of view of scientific methodology. The critique is attached at Appendix 37; for present purposes, perhaps his most important point, found at the end of his summary, is this:

> "In making these statements I wish to make it clear that in no instance is the integrity of the grantee and his associates questioned, nor is it implied that good research work was not done in experiments well designed to provide data, which on an appropriate analysis, would provide unambiguous answers to the questions the experimenters wished to answer. Rather, these conclusions arrived at only indicate that the majority of the grantees failed, for some reason or another, to provide evidence supporting the excellence of their work. Regarding all this I think of the words of Louis Pasteur, 'In experimental science it is always a mistake not to doubt when facts do not compel you to affirm.'"

(2) The Hawthorne and placebo effects

A major shortcoming in Dr. Cameron's methodology was his failure to allow for the so-called "Hawthorne effect", and/or the "placebo effect".

A hospital staff trying out a new procedure will often expend much more time and effort with the patient than in the case of routine treatments. Often there is an air of expectancy, even excitement. Patients do indeed appear to get better, but this is often due to the extra attention being paid to them, rather than to the treatment. Similarly, if told a new drug will help, one finds that the patient does in fact improve - even if the "drug" administered is a neutral substance (placebo). Similar effects are noted in other fields. A new method of personnel management is introduced at the office; productivity picks up; after a while, the "new" procedure becomes

routine and productivity goes back to normal. These "Hawthorne" and "placebo" effects are well known today, and they operate with particular force in the case of mentally ill patients, due to the nature of the illness. Modern scientific research is carried out in such a way as to eliminate them, through "double blind" techniques (where neither the patient nor the person administering the "drug" knows whether it is a placebo or not) and other methods.

Cameron failed to allow for these effects in his research and treatment, and he failed to discount them in assessing results. Depatterning and psychic driving involved tremendous efforts on the part of many professionals, bringing patients into intimate contact with staff over many months, even years, as is shown by the underlined portion of the quotation from one of Cameron's articles, set out in section 2.E. of this opinion.

Cameron's patients did indeed "seem to be getting better", but this may well have been due to the operation of these effects, not Cameron's treatments.

The fact that the Hawthorne effect was likely at work in Cameron's research became apparent with the results of the study on depatterning ordered by Dr. Cleghorn when he replaced Cameron as head of the Allan in 1964 (See

Appendix 38). In brief, the study shows that, in general, patients who had received depatterning were no better off than those who had not, after a few months or years (i.e. after the Hawthorne effect had worn off). It was on the basis of this study that Dr. Cleghorn stopped the depatterning procedure at the Allan.

Should Dr. Cameron have taken the Hawthorne and placebo effects into account in performing his research and treatments? A really first class scientist probably would have. That is why I have said in section 2.H. of this opinion that depatterning "was not justifiable even by the standards of the time and even in the light of the rather rudimentary level of scientific and medical knowledge of those days compared to today."

On the other hand, as Dr. Cleghorn says (Appendix 36, Part II, pp. 37-38) these effects had not reached common notice until the 1950's, and:

> "It was the 20 to 25 year period from 1935 [i.e. 1955 to 1960] before the concept of adequate controls [such as making allowance for the Hawthorne and placebo effects] had assumed a regular place in medical research, and longer for psychiatry, for it had less involvement than medicine in the basic sciences, therefore was even more laggardly." (emphasis added)

If Cameron was at fault for not taking these effects into account during research and treatment, and for not doing long-term follow-up studies on his patients to determine whether it was the treatment or something else that seemed to make them better, then he was in the company of many others. For example, as Dr. Cleghorn points out (Appendix 36, Part II, p. 37), it was not until twenty years after insulin shock therapy treatment came into effect in the 1930's that psychiatrists realized the treatment had no value for a large range of patients; patients just felt better because of the attention paid to them. Nevertheless the treatment, equally as intrusive as massive electroshock and if anything more dangerous, was still in use in Canada until well into the 1960's. Medicine and psychiatry provide many other examples of this failure to take these effects into account in the 1950's and early 1960's when the necessity for proper scientific controls was not as widely understood by the medical profession, particularly psychiatry, as it is today.

It is for this reason that in section 2.H. of this opinion I qualified the conclusion there stated (and restated three paragraphs above) with the statement that this conclusion is only apparent with the benefit of hindsight.

(3) The background for the general conclusion on Dr. Cameron's abilities as a research scientist

The state of affairs discussed in the last subsection has changed in the 1970's and 1980's, but Dr. Cameron's deficiencies in this regard were typical of the medical profession, especially psychiatry, in those days. (See the reports of Dr. MacDonald, Appendix 5, pp. 2-3 and 6; and Dr. Lowy, Appendix 6, p. 6.)

Cameron was therefore not at all unique in being deficient in scientific method and the techniques of scientific research. Research in medical fields did not really get underway until the 1930's and it was twenty or thirty years before they came to be fully accepted (see the views of Dr. Cleghorn in Appendix 36, Part I, p.111 and Part II, p.27 and p.37). In fact an examination of research by other psychiatrists active at the time shows that the scientific quality of Cameron's work, though poor, was "no less rigorous" than, or at least "not significantly worse than", those of his contemporaries in psychiatric research: See Dr. Lowy, Appendix 6, p.6, and Dr. MacDonald, Appendix 5, p.6. As further evidence of this there is the fact that his work was widely published in peer-reviewed scientific and medical journals. Moreover in Dr. Fisher's detailed assessment of the scientific quality of research programs that had been carried out to that date in mental health (Appendix 37), Dr. Cameron's

projects, though not free of deficiencies, come off well in comparison.

If, therefore, Cameron's research work in the field of massive electroshock therapy and psychic driving left a great deal to be desired from the scientific point of view, as it undoubtedly did, this failing does not in itself show that the work in question was deliberately aimed at some purpose other than the benefit of the patient. As explained, the view of the doctors I interviewed and of the three experts I engaged is that the benefit of the patient was indeed Cameron's true aim, a fact which they believe is demonstrated by Cameron's professional writing (Appendices 7 to 17).

(4) Reservations of psychologists

It is right to note here that some of the psychologists whom I interviewed hold a more sceptical view of Cameron than do the medical doctors. Also, as noted earlier, Dr. Donald O. Hebb was also sceptical of Dr. Cameron's methods and scientific abilities. Being schooled in a related field, and having the added advantage of training and experience in scientific method and in research, this attitude is perhaps natural.

What is noteworthy, however, is that, like the medical doctors, none of the psychologists spoke up in opposition to Dr. Cameron at the time when the work was being done. My conclusion is that it is only with the special knowledge that comes with an understanding of scientific methods and proper procedures for scientific research, and in some cases with the benefit of hindsight and perhaps in the light of the allegations made by the nine plaintiffs in the U.S.A., that these psychologists now find themselves more strongly critical of Cameron than the medical people.

C. Conclusions on the quality of Dr. Cameron's work and its place in the context of the times

After interviewing thirty-one people now or formerly active in the field of mental health research, and with the benefit of the opinions of three independent experts, the conclusion on all of this material that comes closest to the real truth, in my opinion, is that Cameron was a good man in the sense that he was trying to do the best he could for his patients, a good doctor in the sense that he understood his medical speciality well enough to practice it, but that the poor quality of his scientific research led him into serious error. What is clear is that, while there were private doubts about the efficacy of psychic driving and depatterning, the details of which are discussed fully at the end of this section, no one raised

these doubts at the time in such a way as to suggest that these treatments were improper. In particular, no one - whether a psychiatrist, psychologist or in another field - associated with the Mental Health Division of the Department of National Health and Welfare, or with any of its external research advisory committees, had doubts strong enough to suggest that grants ought not to be made to Dr. Cameron because of the nature or quality of the work he was carrying out.

It is also relevant to note that this is not a case of "experiments" carried out on socially disadvantaged patients who were under compulsion or did not know any better. Cameron's was a "carriage trade" practice; his patients were for the most part voluntary, having been referred to him by other doctors in private practice, both general practitioners and other psychiatrists, in the belief that he was a leading psychiatrist of the day. It was Cameron's practice to send regular written reports to the referring doctors, explaining his procedures in detail.

These facts constitute strong evidence of the high regard in which he was held, and of the views of the medical community generally as to the efficacy and propriety of his treatments.

In this connection, two points might be noted. First of all, while no depatterning and psychic driving treatments of this nature are carried out today and indeed almost certainly could not be, given today's much stricter standards of research and treatment, nevertheless some psychiatrists believe that some patients were indeed helped by these procedures. Included among these are Dr. Cleghorn himself, who knows of at least some patients who in his opinion did in fact benefit, and knows personally of no patient of whom it could be said with <u>certainty</u> that they were worse off because of the depatterning procedures than they otherwise would have been. Dr. Charles A. Roberts also feels the same way. Almost all doctors - including certainly Drs. Cleghorn and Roberts - would however agree that these procedures were false trails in the field of psychiatric research and treatment, and that on balance the treatments were of no benefit. Certainly there is no suggestion on anyone's part that the techniques should be revived today, given all the new techniques and procedures (especially psychopharmacology) now available to the profession.

It should be further noted that much more intrusive and intensive psychiatric procedures were readily accepted in the 1940's, 1950's and early 1960's than would be accepted today. For example, electro convulsive therapy was applied in the early days without the benefit of muscle

relaxants, such as chlorpromozine, curare, etc. These treatments often resulted in the patient undergoing extremely violent muscular spasms; some patients even broke their backs. In those days too, the surgical procedures of lobotomy and leucotomy were developed and in widespread use. These involved nothing less than the surgical destruction of certain parts of the brain, which did indeed succeed in relieving the patient's adverse mental condition, but at the same time destroyed the person's feelings and whole personality. The technique of insulin coma shock therapy was also highly intrusive and at least as dangerous as massive electroshock treatments. And some of the newer experimental drugs, such as LSD-25, were also highly intrusive because of their incredible power to alter the state of the mind. In the authoritative textbook, Kalinowsky and Hoch, 2d ed. (1957), massive electroshock therapy is treated without adverse comment (See Appendix 38A). None of these procedures are used now, nor would psychiatrists today recommend that they be reintroduced.

The fact is that massive electroshock therapy and psychic driving did not appear as out of place in the 1950's and early 1960's as it does today. While certainly not regarded as benign, these procedures were nevertheless not regarded as lying outside the realm of the acceptable, involving as they did intrusions of the same order of magnitude as those associated with other psychiatric techniques

of the day. And indeed, given the state of psychiatric knowledge at the time, and given the overwhelming problems with which psychiatrists were faced - hundreds of thousands of severely ill mental patients and few tools with which to relieve their agony and distress - many people I interviewed felt the medical profession was right to try new techniques. It is no argument against Dr. Cameron's procedures, any more than it is against many other equally intrusive techniques, to say that today - with our much more sophisticated understanding of the workings of the mind and our much broader range of treatments - they appear to be barbaric.

D. Knowledge held by H&W employees as to the quality of Dr. Cameron's research

None of the public servants to whom I spoke recall ever having heard any adverse views expressed, either from within Departments of government or by external reviewers or by outside research advisory panels, as to the procedures or techniques being utilized by Dr. Cameron and the AMI. If at the time of a grant application they had heard "mutterings", the practice would have been to discuss them and make an evaluation as to whether the research project in question had sufficient scientific and medical merit to warrant its being funded by agencies of government.

It is true that in those days public servants and members of the advisory panels did not consider it to be their responsibility to be much concerned about the ethics of the proposed research, or about the quality of the consent that had been obtained from the patients and/or volunteers. Compared to the attitude of today, responsibility rested much more on the doctor or scientist carrying out the research, and much less on either the institute to which he was attached or on the granting agency; it was simply assumed that ethical people did ethical things. (This point is discussed in greater detail in Section 6). Nevertheless, the persons to whom I spoke all suggested that, had there been concern that the research project was improper or unethical, and not for the therapeutic benefit of the patient, the matter would certainly have been raised either internally, by the external reviewers, or by the outside research advisory panels.

E. Conclusion on the efficacy and propriety of Dr. Cameron's research, and contemporary reservations

The evidence contained in the file materials, the evidence of the people I have interviewed and particularly the opinions of the three experts, all point to the conclusion that the work done by Dr. Cameron and his associates, though today regarded by most medical and scientific people as unsound, was not carried out for any improper purpose, but was intended by Dr. Cameron and his

associates to be of therapeutic benefit to his patients. This does not, of course, dispose of the ethical question, which is discussed in the next section of this report. Nor is this conclusion free from controversy.

There were a number of psychiatrists and other medical doctors with whom I spoke who either had doubts themselves at the time as to the propriety (and indeed the efficacy) of Dr. Cameron's work, or who heard expressions of doubt on the part of others. There were others who at the time had no such doubts, and also some who had formed no opinion. The three experts I engaged have each concluded that Cameron's procedures were acceptable given the knowledge and climate of the times, and none of the other psychiatrists or medical doctors I spoke to expressed a contrary view. I concur with this conclusion. I have thought it desirable, for the sake of completeness, to list all comments I have heard (even casual comments from those who support this conclusion) that might be taken to be adverse to it. These comments are as follows:

(1) Dr. Omond Solandt - Dr. Solandt, as chairman of the Defence Research Board, had a close colleague whose wife became a patient of Cameron and underwent the depatterning procedure. After a year, Cameron simply sent her back home and advised in a rather peremptory way that he could

do no more for her. Dr. Solandt and his colleague inferred from Cameron's report that he had depatterned the patient and was not able to repattern her. Dr. Solandt became sceptical of the efficacy of Dr. Cameron's methods and indeed formed the opinion that he was not possessed of the necessary sense of humanity to be regarded as a good doctor. He let it be known quietly, through Dr. W.N. Morton (now deceased), the Director of the Biological Research Division at the DRB, that he (Solandt) would not look favourably on any application that might be made by Dr. Cameron to the DRB for research in the psychiatric field. (The AMI did apply for, and received, grants from the DRB and these are discussed in section 3 of this opinion; but these grants were not for work in the field of psychiatric research.)

It is speculated that Dr. Morton may have passed the message on to Cameron, probably in an innocuous way by suggesting to him that there would not be much point in making grant applications to the DRB because the DRB was not interested in carrying on work within Dr. Cameron's field.

Dr. Solandt did not take this matter any further, for example, by taking official action, because he was not a psychiatrist, and because his one exposure to Cameron's procedures was of a private and personal, not of an objective and scientific, kind.

Although Dr. Solandt is not a psychiatrist, he is clearly one of Canada's most gifted scientific and medical research administrators. For this reason, I consider his contemporaneous reservation about the efficacy and propriety of Dr. Cameron's treatments to warrant very close consideration. Nevertheless, I do not consider Dr. Solandt's reservation to be of sufficient force to change my conclusions as to the legal or ethical responsibility of the Government of Canada. While it turns out that his instincts about the efficacy of Dr. Cameron's techniques were quite right, his was not a scientific but an intuitive and personal judgment based on one failure (as he saw it) of the depatterning technique. Cameron himself appears to acknowledge that in some cases the depatterning procedure was not successful; see (for example) pages 69-70 of the article attached as Appendix 15 and Dr. Cleghorn's papers, Appendix 36, Part

II, p.31. In my opinion, the casual and non-scientific observation of the failure of one - or many - patients to be improved as the result of a medical procedure is not sufficient ground on which to base a conclusion, however correct it may prove in retrospect and however eminent the observer, that Cameron's procedures were improper when judged by the standards of the day. Dr. Solandt agrees with this view.

(2) Dr. Robert A. Cleghorn - It is noteworthy that Dr. Cleghorn was doubtful, as many others were at the time, of the efficacy of the procedures. Cameron himself set up a committee in the early 1960's under Dr. Cleghorn to see what might be done to curb the excesses of one particular member of the AMI staff, whose practice was to use massive electroshock therapy in an almost indiscriminate way. The offender's appointment at the Allan was eventually terminated. And in 1964, as noted previously, Dr. Cleghorn himself, upon succeeding Cameron as Director of the AMI, set up his own committee to examine the depatterning treatment. The committee concluded on analysis of the procedures that had been followed and on examination of a large number of

patients who had received the treatment, that it had not been efficacious. To quote them (Appendix 38):

> "Results of our follow-up investigation indicate that, in terms of both recovery rate and current clinical condition, patients who received intensive electro convulsive shock therapy cannot be distinguished from those who receive other forms of treatment...The incidence of physical complications and the anxiety generated in the patient because of real or imagined memory difficulty argue against the administration of intensive electro consulsive shock as a standard therapeutic procedure."

As a result of this study, Dr. Cleghorn put a stop to the use of the procedure at the Allan Memorial Institute.

Dr. Cleghorn in his private papers describes the treatment as "therapy gone wild with scant criteria"; (Appendix 36, Part II p.88); but in my discussions with him he gave me to understand that in this passage he was addressing the general effect of the treatments on patients as judged with the benefit of hindsight, not Cameron's purpose or attitude or mind in carrying them out. As is obvious from his private papers, Dr. Cleghorn writes with considerable style and flair. On reflection, he feels the colourful phrase quoted above is an

overstatement and, as his private papers read as a whole (as well as his discussions with me) make clear, at no time, then or now, did he hold the view that Cameron's work was either scientifically or ethically improper, given the standards of the day. In fact, he concludes that Cameron's intentions were to benefit his patients, and indeed believes that some of them may in fact have benefitted from the treatments.

Finally, in 1966 at an international psychiatric conference, Dr. Cleghorn bumped into Dr. Cameron, who asked about the status of the depatterning procedures. When Cleghorn told him that he had stopped them, Cameron replied, "I thought you would."

In conclusion, it is clear to me from discussions with Dr. Cleghorn and from his private papers that in his view Cameron's work was representative of a legitimate area of inquiry given what was known at the time, but that when more information became available as a result of the follow-up study set up by Dr. Cleghorn when he became head of the Allan (Appendix 38), it

became apparent that Cameron's procedures were not efficacious, and Cleghorn therefore stopped them.

(3) Dr. F.C. Rhodes Chalke - Dr. Chalke, a psychiatrist, former employee of the Defence Research Board, lecturer at the AMI and later President of the Canadian Psychiatric Association, had some doubts at the time. He was asked, by the family, to take as a patient the widow of a former medical colleague, after she had been unsuccessfully given the depatterning treatment by Dr. Cameron. It was Dr. Chalke's job to attempt to treat her for severe depression. It was this particular experience that gave rise to doubts on his part. Nevertheless Chalke, too, did not raise these doubts publicly; particularly in light of doctor/patient confidentiality.

(4) Dr. Charles A. Roberts - Dr. Roberts was from 1951 until 1957 the head of the Mental Health Division of the Department of Health and Welfare. He had some private doubts at the time, but like others refrained from expressing them in view of Dr. Cameron's pre-eminence in the psychiatric profession in Canada.

(5) Mr. John Osborne - Mr. Osborne, a former H&W economist with no medical or scientific training, remembers attending a meeting, perhaps of the Dominion Council of Health, sometime in the 1950's. While walking down the aisle of the meeting room, he overheard Dr. G.D.W. Cameron (now deceased), the then Deputy Minister of National Health and Welfare, saying to either Dr. Charles Roberts or Dr. Ken Charron (Mr. Osborne cannot remember which) that he thought that Dr. Ewen Cameron of the AMI was going too far. This was just a snatch of conversation and was never pursued by Mr. Osborne. Neither Dr. Roberts nor Dr. Charron remember the conversation.

(6) Dr. Craig Mooney and Dr. J.W. Fisher

These persons expressed keen reservations to me about the adequacy of Cameron's work. Dr. Mooney is a psychologist, and Dr. Fisher a virologist. Dr. Mooney was at different times secretary of the Subcommittee on Research of the Mental Health Advisory Committee of the Mental Health Division, H&W, and was head of the personnel research section of the Human Resources Section of the Defence Research Board.

Dr. Fisher, as a research officer with the Mental Health Division from about 1950 to 1956/57, personally reviewed all applications for Mental Health Grants received by the Division in that period. Their reservations had to do with the lack of scientific rigor with which the research work was carried out. A more detailed discussion of Dr. Fisher's views appears elsewhere in this opinion. To repeat, the basic point is that in the 1950's and early 1960's medical researchers generally and psychiatrists in particular did not have a good grasp of scientific research methods, in contrast to psychologists and others with scientific training.

In my interview with Dr. Fisher, he considered the period in question (the 1950's) to be the "age of clinical experimentation" where new therapies were being tried quite freely and frequently. He gave the example of tranquilizers. Certainly his written assessments at the time do not suggest Cameron's work was any more inadequate scientifically than that of other researchers.

(7) Sir Aubrey Lewis - Lewis and Cameron both took their residencies in psychiatry at Johns Hopkins University in 1926 under Dr. Adolf Meyer. Their relationship, personally somewhat strained, is described in Dr. Cleghorn's notes in Appendix 36, Part II, pages 85-87. In 1957, when Lewis was head of the famous Maudsley Hospital in London, he told Dr. Cleghorn privately that he thought Cameron's depatterning treatments were "barbaric"; but on the other hand Cameron was invited to the Maudsley as a special guest lecturer in 1962 while Lewis was still in charge, an invitation that would be out of the question if there were any contemporary doubt in the mind of Lewis or that of the profession generally as to Cameron's scientific and medical competence or ethical standards.

The foregoing comments, together with those referred to in the expert reports of Drs. Grunberg, McDonald and Lowy, (Appendices 4, 5 and 6 respectively) constitute all of the comments I have heard or read which might be taken to point to a conclusion opposite to that which I have reached (namely that Cameron's research work was not improper given the practices, the standards, the level of knowledge and the climate of the time in which it was

carried out). It is noteworthy that the general thrust of these doubts had to do more with the efficacy of Cameron's treatments than with their ethical quality.

It will be appreciated that the conclusion I have reached cannot be stated in absolute terms. While all the medical people I spoke to, including the three experts, agree with it, some psychiatrists would probably disagree. My conclusion to this question, the penultimate one I have had to address, is therefore not free from controversy. The answer to the ultimate question - whether the Crown is responsible legally or morally - is in my opinion much less free of controversy. This question is taken up in sections 9 and 10 of this opinion.

6. ETHICAL CONSIDERATIONS SURROUNDING THE NATURE AND QUALITY OF DR. CAMERON'S ACTIVITIES, AND THE ISSUE OF PATIENT CONSENT

In developing this section of my opinion I have relied heavily on the opinions of Drs. Grunberg, McDonald and Lowy, attached as Appendices 4, 5 and 6 respectively.

A. Ethical standards in medical research and experimentation

We start with this, that some form of "experimentation" is essential if any progress is to be made in medicine. To quote from THE DECLARATION OF HELSINKI AS REVISED (1975),

"Recommendations Guiding Medical Doctors in Biomedical Research Involving Human Subjects":

> "Medical progress is based on research which ultimately must rest in part on experimentation involving human subjects."
>
> "In the field of biomedical research a fundamental distinction must be recognized between medical research in which the aim is essentially diagnostic or therapeutic for a patient, and medical research, the essential object of which is purely scientific and without direct diagnostic or therapeutic value to the person subjected to the research."

The Helsinki Declaration was adopted by the World Medical Association in 1964 and revised in 1975; the Working Group on Human Experimentation from the Medical Research Council of Canada has described it as the most important of many attempts to provide standards in biomedical research, and represents as no other document the consensus of the world community: see page 9 of Report No.6, "Ethics in Human Experimentation", published 1978, attached as Appendix 39; the Helsinki Declaration is Appendix C-2 to this Report.

The question is, of course, what are the legal and ethical limitations on such work?

Society's ideas on this important subject have changed considerably in recent years. They have changed in general terms and they have also changed in specific terms. As for the latter, the specific requirements imposed on medical researchers today to ensure that their work meets ethical standards are spelled out in much more detail now

than they were in the 1950's and early 1960's. Certainly scientists and medical doctors have never been ethically or legally permitted to conduct pure experiments on humans, in the sense of carrying out procedures on unwilling and unwitting victims for a purpose not intended to be beneficial to the patient, but rather for some other purpose such as the advancement of science, or to increase medical knowledge generally. However, until recent times, and certainly in the 1950's and early 1960's, much greater reliance was placed on the integrity of the person conducting the research than today. The major burden of deciding the ethical questions was placed squarely in the hands of the individual responsible investigator. To quote Drs. Lowy (Appendix 6, p.10) and Grunberg (Appendix 4, pp.9-10) there was an attitude of "benign paternalism" towards the investigator.

To be sure, the institution (in this case, the AMI) and the granting agency (in this case the Department of National Health & Welfare) always bore some measure of responsibility, as both Dr. Lowy and the MRC Report make clear. But this responsibility was vaguely defined at best until at least the late 1960's and 1970's.

In 1978, after considerable debate within the profession, the Medical Research Council of Canada produced the guidelines set out in Appendix 39. Thereafter, those

engaged in medical research of an experimental kind who applied for grants from the MRC were obliged to follow these guidelines. They are now standard in Canada, even for research in which the MRC is not the granting agency.

The research that Dr. Cameron carried out in the 1950's and the 1960's could almost certainly not be carried out today. His research project would first have to be reviewed by the scientific review committee of the AMI (or the Royal Victoria Hospital), and it is highly unlikely that they would approve his research on scientific grounds due to its weak theoretical basis and inadequate methodology. Then, the project would have to go before the ethics committee, a committee usually consisting of medical doctors, research scientists and lay people. Committees of these kinds did not exist when Dr. Cameron was active. Their existence today, though not providing absolute guarantees, makes it much less likely that a researcher could carry out scientifically weak or ethically questionable research. This is especially so since nowadays not only does the MRC require the researcher to attach to the grant application an ethics certificate from the institution's ethics committee, but also officials within the civil service who review the application, the external reviewers and the research advisory panels are to raise any concerns of an ethical nature that they might have in regard to the proposed research. While this was

also true in the 1950's and early 1960's, the custom then was to place much greater reliance on the integrity and competence of the investigator. Only in a clear case would the external reviewers be expected to raise ethical concerns. And, as detailed in section 5, I have uncovered no evidence to suggest that such concerns existed or were brought to the attention of the granting agency in relation to Dr. Cameron's research.

The difference in approach between Cameron's time and our own may be discerned by examining the current MRC grant application form and ethics certificate at Appendix 40 and comparing it to the actual application signed by Dr. Cameron in the Mental Health Grant Project No. 604-5-433 at Appendix 41. Neither the latter application nor the then current departmental memoranda on research grants, found at Appendix 26, refer to the question of ethics.

B. The question of consent

I turn now to the question of consent. The practice in the 1950's and early 1960's was to obtain a form of general consent. From the Orlikow and Morrow cases, we have examples of the kinds of consent actually obtained by the AMI. These consents, together with those for two other plaintiffs in the U.S. law suit (Mrs. Zimmerman and Mr. Weinstein), are attached at Appendix 42. See also Appendix 1A, p.14.

The fact is, general consents of this kind were regarded by all in those days as ethically adequate, and in addition they were sufficient in law to shield the doctor and the institution from legal liability.

Today the situation has been substantially altered. This is due to the adoption since those days of the doctrine of "informed consent", under which in experimental proceedings or novel therapies the patient must be given a full explanation of what is going to happen, the likely side effects, alternative treatments available if any, the consequences of not taking the treatment etc. (Here it should be noted that while Dr. Cameron's procedures were initially experimental or at least in the nature of therapeutic research, he later looked upon them as routine. It should also be noted that neither in the 1950's and early 1960's, nor today, do granting agencies concern themselves with the question of consents from individual patients. It is simply assumed that such consents will be obtained.)

C. Some developments subsequent to Dr. Cameron's tenure at the Allan in the matters of consent and choice of treatment

The following developments will highlight the changes that have occurred since Dr. Cameron's time:

(1) The Halushka Case: This case, cited as Halushka v. University of Saskatchewan et al. (1965), 53 D.L.R. (2d) 436, (Sask. C.A.) established clearly the doctrine of informed consent in medical experiments. The doctrine has since been elaborated and extended.

(2) The "Patient's Rights" movement: This movement began in the mid 1960's in the U.S., as is evident from the September 1985 article attached as Appendix 43, taken from "Canada's Mental Health", a journal published by Health and Welfare Canada. The article gives the history of the Patient's Rights and Ethics Committee at the Douglas Hospital Centre in Montreal (formerly the Verdun Protestant Hospital). The Committee began in 1966 in response to a new development from the U.S.: the requirement of the U.S. Department of Health, Education and Welfare that any institution seeking research grants from the U.S. government needed to have an ethics committee review the research protocol before they could qualify. See also Schwartz, "Institutional Review of Medical Research" (1983), J. Legal Med. 143.

(3) The Helsinki Declaration, found at page 61 of Appendix 39, came out first in 1964. The Nuremburg Code of Ethics in Medical Research (on which Dr. Cameron worked), a result of the post-war Nuremburg Trials, was found inadequate to meet the changing views of society on control over biomedical research. Hence the 1964 Declaration.

(4) Dr. Edmund Pellegrino, Professor of Medicine and Medical Humanities at Georgetown University, Washington, D.C., and Director of the Kennedy Institute of Ethics at the same University, is a recognized expert in the field of medical ethics. In his Killam Memorial Lecture at Dalhousie University on October 24, 1985, Dr. Pellegrino said that until 20 to 25 years ago (i.e. between 1960 and 1965), during the 2,500 year history of medical ethics, the decision as to choice of treatment was made by the physician alone. The physician was the final authority both technically and morally, and his decision was not questioned.

(5) Thalidomide: The thalidomide disaster of the early 1960's opened the eyes of both the public and the medical profession to the tremendous dangers that new drugs (and by extension, other treatments) could pose if not carefully tested before being used on humans. After the shock of thalidomide, the public and the medical profession alike began to give much more attention to the unknown effects of medical treatments generally and drugs in particular.

The changes in society's thinking brought about by these developments and others like them have been rapid and profound. All of them occurred after Dr. Cameron retired from the Allan, or just at the end of his tenure there. It is difficult now to step back from the new environment created by these developments and look at the matter through the spectacles of the 1950's and early 1960's, but it is essential to do so if we are to render a true judgment. Neither legally nor morally should we impose today's standards in the matters of consent and choice of treatment upon the actions of those who in good faith conducted themselves in accordance with the laws and the ethics of the day.

7. THE INVOLVEMENT OF THE CIA

A. General conclusion

There is no doubt that the CIA funded Dr. Cameron to conduct research work at the AMI in the field of psychic driving, in combination with the usual concomitants of depatterning, sleep therapy, sensory isolation and drugs. Total funding apparently amounted to $84,820 and was spread over six years, from 1957 to 1962. (See Tab H of the Affidavit of John Marks in the Orlikow case, sworn April 30, 1981, attached at Appendix 44; there is conflicting information within Tabs G and H as to the exact time frame of the funding and the amounts involved, but it will be assumed for purposes of this opinion that the later date (1962) and the higher amount (stated above), are correct.)

In preparing this opinion, I have not had access to CIA file materials, other than the publicly available information specifically referred to. Nor have I had access to patient's records. Because of these limitations to my mandate, it is impossible to reach a conclusion as to what role (if any) the CIA actually played in instigating, directing and controlling the treatments given to individual patients. It follows that any inferences I may draw in this regard are necessarily tentative and speculative.

What is clear, however, is that the allegations as to treatments made by the nine U.S. plaintiffs are consistent with the supposition that the CIA was only involved in funding and was not involved in instigating, directing and controlling Cameron's work; and that Cameron was simply applying treatments of a kind which, by the time he applied for funding from the Society for the Investigation of Human Ecology (the CIA "cover" organization), had become standard practice for him. This conclusion is based on a comparison of the procedures alleged generally by the nine U.S. plaintiffs, with those in general use at the time at the Allan; it will be appreciated that, in the absence of patient's records, no conclusion can be drawn as to the propriety of any particular treatment in the case of any particular plaintiff.

Because questions about what happened at the AMI can be answered without reference to the CIA's role, it follows that in a sense, the CIA's role is a side issue in reaching the conclusions arrived at in the rest of this section of this opinion. I have, however, considered it important to discuss this role, both to explain how I arrived at these conclusions, and because of your request that I address the question of the government's wider (i.e. extra-legal) responsibilities - a question which, in view of the public attention which has been paid to the matter of CIA involvement, cannot be fully addressed without reference to what is known about that involvement.

B. The context of the times

During World War II, scientists from the United Kingdom, United States and Canada had cooperated to the fullest possible extent. This cooperation continued in a quite natural way for a long period after the war, heightened by the engagement of the three countries in the Korean War of the early 1950's.

The June 1, 1951 meeting that took place in the Ritz Carlton Hotel in Montreal, described in section 3 of this opinion, was the starting point for cooperative effort among the three countries in defence-related research into problems of the mind. As a direct result came the research on the effects of sensory deprivation carried out by Dr. Donald O. Hebb at McGill.

C. Understanding between Canada and the U.S.

At that time, so I am advised by Dr. Solandt, Chairman of the Defence Research Board from 1946 to 1957, there was an unwritten understanding between DRB (including the Chiefs of Staff of the Canadian Services, who were members of the DRB), and their opposite numbers in the U.S. Defence Department and all three U.S. Services, on the subject of classified defence-related research. It was agreed that neither government would fund defence research of a

classified nature that was to take place in the other country. Instead, if (for example) the U.S. wanted to have some research done in a particular field, and considered the work could best be done in Canada, they would inform the DRB,and if the DRB considered that the project fell within its mandate and was not unsuitable on some other ground, then the DRB would fund the research directly itself. The U.S. did not directly reimburse Canada for this work but there was a rough quid pro quo in that, when Canada requested the U.S. to do certain work in exchange, the work would be done south of the border and at U.S. cost.

The reason for this arrangement was so that Canadian researchers would not be placed in the position of being under a duty of confidentiality to a foreign government concerning the results of the classified research, and as a result be unable to transmit the results to their own government.

Dr. Solandt has advised me that on a couple of occasions, U.S. government agencies made plans to, or actually attempted to, fund classified research in Canada directly, in contravention of this unwritten understanding. I am not clear whether this was done deliberately or by mistake, but in any event the plans or attempts were discovered and the projects were either terminated or continued by the DRB in collaboration with the U.S. Agency that needed to have the work done in Canada.

I asked Dr. Solandt whether the unwritten understanding extended to unclassified work funded by defence agencies of the U.S. government. While strictly speaking it did not, Dr. Solandt said that Canada would have taken "a pretty dim view" of attempts by U.S. defence agencies to fund research without checking with the DRB, even if that research was not of a classified nature.

Dr. Solandt had not heard of the Society for the Investigation of Human Ecology, nor had he heard of any CIA funding of research projects in Canada and in particular Dr. Cameron's work at the AMI until reading the newspaper reports of the past few years. Had he known of such funding at the time when he was in the public service he would have disapproved of it, even though Dr. Cameron's work was unclassified, on the basis that such funding ran counter to basic understandings even if not counter to the particular unwritten understanding that obtained with respect to classified research.

There was of course, and continues to be, a great deal of openly acknowledged funding of unclassified research in Canada on the part of U.S. government agencies. These include the U.S. Surgeon General, the U.S. Armed Forces, and the National Institutes of Health. The point is simply that, in Dr. Solandt's view, the ultimate source of funding for such work should indeed be openly acknowledged.

D. The Society for the Investigation of Human Ecology

The next matter to consider is the composition and practices of the Society for the Investigation of Human Ecology. In accordance with my mandate I have not made any enquiries in the U.S. For what follows I have relied on publicly available information most of which I have located in Canadian Government files.

The Society for Investigation of Human Ecology, Incorporated ("SIHE") was a research funding agency based in New York City. It was incorporated in 1955 by Dr. Harold Wolff, a neurologist at Cornell Medical School, with himself as President. In 1961 the Society changed its name to the Human Ecology Fund, Inc. It received its funds from a number of "legitimate" sources, and was also used as a "cover organization" through which the CIA funded research projects in which it had an interest. The CIA closed down the "front" in 1965.

The Executive Director of the Society was Colonel James L. Monroe. His salary was paid by the CIA, according to John Marks, author of "The CIA and Mind Control: The Search for the 'Manchurian Candidate'" (McGraw-Hill, 1980). CIA documents confirm that the Cameron project was to be monitored by Monroe: see Appendix 45, para. 9(2). Monroe visited Dr. Cameron in Montreal while supervising

the grant. (See letter of Colonel Monroe at Appendix 45A; see also Appendix 44, Tab E, where Leonard Rubenstein (an associate of Cameron's in the CIA-funded project) says he remembers meeting Monroe). Colonel Monroe has stated that only 25-30% of the Society's funding came from the CIA (Tab E, Appendix 44), but in a newspaper article at the same tab, Dr. Lawrence Hinkle, a former director of the Society, says most of the support came from the CIA; and in his book Marks puts the actual figure at over 90%.

However this may be, it is clear from U.S. government statements that the CIA was involved with Dr. Cameron's research, and for purposes of this opinion I have assumed that all of such funds originated with the CIA. This conclusion seems to be borne out by the CIA materials at Appendix 45B.

A brief word on the background of the MK Ultra program is in order. MK Ultra was the name given to an extensive CIA program of research into behavioural modification, including the use of drugs and other techniques. The psychic driving research which Dr. Cameron carried out with SIHE grant money was designated by the CIA as "MK Ultra Subproject 38".

E. Dr. Cameron's grant application to the SIHE

On January 21, 1957, Dr. Cameron made his application to the SIHE for a grant for $19,090 for two years. The application is attached as Appendix 18. In it will be seen reference to the psychiatric procedures under review here. What is clear both from this application and from the scientific literature is that Cameron had certainly developed and put into practice the techniques of depatterning and psychic driving a number of years before he made his application to the SIHE. He stated in his application that the "first objective" of the SIHE research was to improve the psychic driving technique. The use of specific drugs, including curare, to "inactivate the patient" during driving was mentioned. The use of LSD 25 to "break down ongoing patterns of behaviour" was also mentioned. The "second objective" was to measure the amenability to change of certain physiological functions as a consequence of the repetition of verbal signals. The original application was granted and then extended for two further years. Altogether, as stated above, Cameron received the sum of $84,820 (or rather the AMI received this sum, because Cameron's application specified that there was to be no remuneration for himself.)

It should be noted here that, with one exception, no one I spoke to had ever heard of the SIHE, or of any CIA funding

of research in Canada, in particular research at the AMI, until reading about it in the newspapers in the late 1970's and early 1980's. One person, Dr. Ruth Hoyt, was once asked at McGill in the 1950's, by persons not remembered, if she had heard any rumours about CIA funding of Dr. Cameron's research. She had not.

F. The position of the U.S. government

The position of the U.S. government is that, while they acknowledge the grant from the SIHE to the AMI, and the CIA participation in the SIHE, the CIA did nothing more than fund an ongoing program of research. They deny that the CIA in any way instigated or controlled or directed Dr. Cameron in his work. They were simply interested in seeing the research program carried out and in obtaining the results. A Note from the U.S. Embassy on this point is attached as Appendix 48.

G. The CIA and Dr. Cameron's research activities

The question next arises, did the CIA direct, control or guide Cameron's research activities in such a way that the "treatments" administered to patients were not intended to be for their benefit, but instead were intended to be pure experiments on unwilling and unwitting victims?

In attempting to answer this, one must first look at the prior question: Did Cameron even know that the CIA was behind the grant from the SIHE?

In the first place, I have seen no direct evidence that this was Cameron's purpose. It might be argued that the fact that Cameron carried out these highly intrusive and intensive procedures at all constitutes such direct evidence, especially in view of the fact that they did not work. But such evidence is equally consistent with the conclusion that Cameron's procedures were intended to be of benefit to his patients. The fact that they did not work is not proof of anything sinister, as there have always been and always will be cases of medical misadventure, where new techniques have been tried and have failed. Such evidence is also consistent with the suggestion that the CIA was interested in merely supporting on-going research in areas of interest to it. It is easy to imagine why Cameron's research into the techniques of psychic driving would be of interest to the CIA in the context of its MK Ultra program, even if such research was not controlled or directed by the CIA.

Second, all of the medical people with whom I spoke were strongly inclined to doubt it, as were almost all the others I spoke to.

Third, the indirect evidence seems to me to point to the conclusion that CIA control of Cameron's work is quite unlikely. The following considerations suggest this conclusion:

(1) It is difficult to believe that an agent of the CIA bent on performing "brainwashing" experiments on unwilling and unwitting victims could keep his excesses and ultimate purposes secret from the other psychiatrists, nurses and staff at the AMI.

(2) All of the procedures in the sensitive areas - depatterning, psychic driving, sensory isolation, sleep therapy and psychopharmacology - were in fact in use by Cameron long before the CIA became involved. The SIHE application only proposed improvements in existing psychic driving procedures. This is clear on the face of Cameron's application to the CIA (see Appendix 18) as well as from Cameron's published literature. Indeed, at least one of the nine U.S. plaintiffs (Mr. Robert Logie) appears to have been in and out of the AMI before the application to the SIHE for funding was made (Sunday Star, Aug. 18, 1985).

(3) Not only were these procedures widely used, but they were widely written about, both in the scientific and medical journals and in the popular press. Cameron never made any attempt to keep his work secret; indeed he flaunted it: see for example the newspaper article at Appendix 48A. He believed in the importance of communicating his work to the public, so as to create a good name for his Institute and for psychiatry in general. It seems to me a servant of the CIA would have kept a lower profile.

(4) In at least three of his publications, Cameron did acknowledge the SIHE's funding of his work (Appendices 9, 11 and 14); it seems unlikely to me that he would give this public acknowledgement if he knew all along the CIA was behind SIHE's funding of the project. Moreover, the SIHE in turn referred in public reports to the work Cameron was doing in psychic driving: See Appendix 44, Tab G. (On the other hand, it might be argued that such public acknowledgement of a funding source constituted part of the "front").

(5) Cameron, in fact, put a stop to what he regarded as excessive use of massive electroshock by one of his associates. This point is discussed by Dr. Cleghorn in Appendix 36, Part II, p.71 and pp.88-89. It seems unlikely to me that someone whose purpose was to destroy other peoples' minds so that he could give the results secretly to the CIA would be troubled by the excesses of a fellow psychiatrist working with him at the AMI.

(6) At least two of Cameron's H&W projects, Nos. 604-5-14 (1950-1954; $17,875.00) and 604-5-432 (1961-1964; $51,860.00) had to do with the same subject matter as the SIHE research. One of these projects was completed three years before the SIHE application was made; the second began as the SIHE project was coming to a close. These facts suggest that SIHE project was simply part of a continuing program of research into new psychiatric methods.

(7) A number of documents suggest he did not know of CIA involvement:

(a) The internal CIA document at Appendix 45 states as follows:

"9. In view of the fact that McGill University is in Canada, the following security consideration should be noted:

(1) Dr. Cameron, the principal investigator, and his staff will remain completely unwitting of U.S. Government interest.

(2) The project will be monitored by Col. James Monroe, staff member of the Society.

(3) No Agency staff personnel will contact, visit or discuss this project with Dr. Cameron or his staff under extreme circumstances.

(4) If it is necessary for Agency personnel to contact Dr. Cameron or his staff, the matter will be discussed with the Office of Security and the desk involved for their evaluation and advice as to the proper procedures to be taken." (emphasis added)

(b) John Marks, in his book "The Search for the 'Manchurian Candidate': The CIA and Mind Control", McGraw-Hill, 1980, states in a footnote at p.133:

> "Cameron himself may not have known that the Agency was the ultimate source of these funds which came through a conduit, the Society for the Investigation of Human Ecology. A CIA document stated he was unwitting when the grants started in 1957, and it cannot be said whether he ever found out."

Chapter 8 of Marks' book, which deals at length with Cameron's work, is attached at Appendix 46. Mark's request under the U.S.

Freedom of Information Act was the origin of much of the subsequent press interest in this matter.

(c) In his testimony of August 3, 1977 before the United States Senate, Mr. John Gittinger, a former psychologist with the CIA, stated (see Appendix 44 Tab F):

> "The Agency in effect provided the money. They did not direct the projects. Now, the fact of the matter is, there are a lot of innocent people who received the Society for the Investigation of Human Ecology money which I know for a fact they were never asked to do anything for the CIA but they did get through this indirectly. They had no knowledge they were getting CIA money."
>
> "I will say it was after the fact thinking. It was utter stupidity the way things worked out to have used some of this money outside the United States when it was CIA money. I can categorically state to my knowledge all the way across of the human ecology functions, but to my knowledge, and this is unfortunate, those people did not know that they were getting money from the CIA, and they were not asked to contribute anything to CIA as such."

(d) The U.S. government has said that available evidence indicates that Cameron and his staff did not know of CIA involvement: See Appendix 48.

(e) Leonard Rubenstein, one of Cameron's colleagues in the SIHE research, has stated that he knew of no CIA connection: See Appendix 44, Tab E.

(f) An External Affairs memorandum to file dated March 1, 1984 suggests that a person (name deleted, but presumably a colleague of Dr. Cameron) was unaware of CIA involvement: See Appendix 47.

On the other hand, on the CBC television show "Fifth Estate", Mr. James Turner, law partner of Mr. Joseph L. Rauh, U.S. attorney for the nine Canadian plaintiffs who have brought suit against the CIA, states that Mr. Gittinger caused a representative of the CIA to telephone Cameron at the AMI and invite him to apply to the SIHE for funding, informing him that the funds originated from the CIA. I have not of course seen the basis for Mr. Turner's statement, and thus I cannot verify or refute this claim.

It is of course intellectually conceivable that, at bottom, Cameron was a mad scientist, conducting experiments on unwilling and unwitting victims for some purpose other than the ultimate benefit of his patients and at the

bidding of some third party like the CIA. But in my view this conclusion is unlikely for all of the reasons given above.

In my opinion, it is more likely that the CIA was simply interested in "buying results" in ongoing research which it in no way controlled or directed. In drawing these inferences I am supported by the view of the former President of McGill, Dr. Bell, who had the matter looked into from a university perspective in 1979 (See Appendix 48B).

Finally, it may be asked whether it makes any difference even if Cameron did know that the CIA was behind the SIHE's funding. In the cold war climate of late 1950's, accepting a research grant from the secret service agency of a friendly country would not carry the sinister overtones it does today. The CIA was not as much tarred with the "dirty tricks" brush as it is today. If therefore Cameron did know of CIA involvement, that fact standing alone does not seem to me to be proof of ill intent. Like many scientists, Cameron would take grant money wherever he could find it without taint: Appendix 47 touches this point. Given the climate of the times therefore, one might well conclude that Cameron believed the CIA's money was indeed untainted, that he accepted it in good faith, and that to prove fault it would be necessary to show in

addition that Cameron had agreed to, and in fact did, carry out secret, non-therapeutic experiments on the minds of unwilling and unwitting victims.

H. Conclusions

If the inferences in the above two paragraphs are correct, it follows that the whole question of CIA involvement is a red herring in so far as this opinion is concerned. The issue here is not whether the CIA ultimately funded some of the work of the AMI; the issue is whether the work that Cameron did was proper or improper, and whether the Canadian government as one of the granting agencies to the AMI bears any responsibility in the event such work is found to be improper.

In saying this, I am of course conscious of the fact that the CIA funding does raise extremely grave questions about the violation of Canadian sovereignty by a foreign government. But however important, these questions raise quite separate issues, and they should not be confused with the issue with which I am dealing.

In accordance with my mandate, I have not addressed these sovereignty questions.

In reaching these conclusions I repeat that I have not seen any information from CIA files in the possession of the U.S. other than the publicly available information referred to above. Consequently, my inferences concerning Cameron's involvement with the CIA are tentative and speculative, and may well need to be changed should the Canadian government take up the proposal of the U.S. Secretary of State that the CIA files be reviewed by Canadian officials, or should other information come to light from other U.S. or Canadian sources. (It may even be argued that the internal CIA memorandum of October 31, 1978 from its General Counsel to Robert H. Wiltse, attached at Appendix 48C, itself suggests a conclusion opposed to that which I have reached; but this memorandum standing alone does not, in my view, assist one way or the other.)

8. THE ORLIKOW AND MORROW CASES

Mrs. Velma Orlikow and Dr. Mary Morrow, two of the plaintiffs in the U.S. lawsuit, also brought action in Quebec in respect of the treatments they had received at the Allan. Summaries of the two cases are attached at Appendices 49 and 50 respectively.

A. The Orlikow case

Mrs. Orlikow's case was commenced in April, 1979 and was settled out of court after evidence was given but before a judgment was rendered. Media reports suggest a settlement figure of $50,000, being the amount of the fees paid by Mrs. Orlikow to the Allan.

What is clear from the evidence is that Mrs. Orlikow had been quite seriously ill since 1951, having been treated with little or no improvement by a number of professionals, including staff at the Mayo Clinic. These treatments included psychotherapy, electroshock treatment and drugs, including Largactil. She came to Dr. Cameron in November, 1956 on the recommendation of her physician in Winnipeg, and remained a patient of Dr. Cameron off and on until May, 1964. Following Dr. Cameron's retirement from the Allan in 1964, Mrs. Orlikow continued to visit him at his Lake Placid home. While under Dr. Cameron's care she allegedly underwent depatterning, sensory deprivation, psychic driving and psychopharmacological treatments, including LSD, sodium amytal, desoxyn and Largactil.

The expert psychiatric evidence presented at the trial is in conflict. Mrs. Orlikow's expert, Dr. Paul-Hus, testified that Cameron's treatments were "very unusual" and of an experimental nature. Dr. Alan Mann, the defendant's

expert, in effect agreed that in general psychic driving and electroshock treatments did not work in the manner in which they were then applied, but said that both procedures (i.e. replay of taped messages and electroshock therapy) are still in use, though in a different way. He said in effect that one had to make allowances for the fact that much less was known in the 1950's and early 1960's about how to treat the mentally ill, and it was in light of this lack of knowledge coupled with a strong desire to conquer the suffering of the mentally ill that one must judge Dr. Cameron's treatments.

In view of the fact that there are no judicial findings of fact in the Orlikow case, conclusions from it are difficult or impossible to draw, and I have drawn none for purposes of this opinion.

B. The Morrow case

Dr. Mary Morrow is a psychiatrist who formerly worked for Dr. Cameron at the Allan and had assisted him in administering depatterning treatments to patients there. In 1960 she herself became a patient of Dr. Cameron, and received electroshock treatments towards depatterning. In 1967 she brought action for damages against the Royal Victoria Hospital and the estate of Dr. Cameron.

In a 1978 judgment of the Quebec Superior Court, her action was dismissed.

In January, 1985 the Quebec Court of Appeal permitted Dr. Morrow to re-open the case and to introduce new evidence not available at the time of the original trial, to the effect that the CIA funded Cameron to carry out brain-washing on patients. This evidence has now been submitted to the Clerk of the Court. I understand, however, that it will be at least eighteen months before the court hears the appeal based on this new evidence.

The trial judgment concludes, in effect, that there was no wrong-doing by Dr. Cameron, that intensive electroshock was a standard procedure at the time, and that Dr. Morrow had given full consent to the treatments.

In view of the strong judgment of Bourgeois, J. of the Quebec Superior Court, reached after hearing extensive expert evidence (including that of Dr. Robert Cleghorn who, incidentally, was called to the stand by the Plaintiff but whose evidence strongly favoured the Defendant), I conclude that this case stands as a strong precedent, at least on intensive electroshock therapy, and at least until the Quebec Court of Appeal renders its decision. Since the new evidence taken last year on the subject of the CIA's funding of Cameron's research is privileged, I

have not had an opportunity to review it. I am therefore not in a position to predict how the Court of Appeal will decide. Depending on how the court decides and on the basis of what evidence, the result could well provide a very strong precedent at the Appeal Court level, both on the question of intensive electroshock therapy and on the conclusions to be drawn from CIA involvement in funding research at the Allan.

9. LEGAL PRINCIPLES APPLICABLE TO THIS CASE, AND CONCLUSIONS OF LAW

A. Preliminary assumption

A complete discussion of the applicable legal principles, authorities and my conclusions thereon will be found at Appendix 51. These conclusions are based on the assumption that a potential plaintiff could prove Dr. Cameron's conduct to be tortious in the first instance. In my opinion, this assumption is not warranted. While the matter is not free from doubt, and (as explained above in section 5) would be the subject of controversy among psychiatrists, in my opinion the weight of evidence and of legal precedent points to the conclusion that no tortious liability would be found to exist if the matter were litigated. Of course, in stating this I am assuming that such litigation would be decided on the general question

of whether Cameron's procedures were proper or improper in themselves given the climate and knowledge of the times, and would not turn on such questions as whether the particular treatments used in the case of a particular plaintiff were appropriate for that individual or, if so, whether the treatments were carried out in a negligent or a proper manner.

In reaching this conclusion I have relied on the expert opinions of Drs. Grunberg, McDonald and Lowy, as well as on the factual analysis set out in the foregoing sections of this opinion.

If this analysis is correct, and a plaintiff could not establish legal liability against the Allan or the estate of Dr. Cameron, or some other person having responsibility for a plaintiff's treatment, then a fortiori no legal liability can be established as against the Crown.

B. Legal analysis

Assuming, however, that the foregoing analysis is incorrect, and that a plaintiff could prove tortious conduct as against the Allan or some other party, the question still arises as to whether the Crown is legally liable by reason of having funded certain of the research work of Dr. Cameron and the Allan. I have reached the conclusion that

the Crown would not be liable, for the reasons set out in Appendix 51. The following is a brief summary of those reasons.

The Crown is liable only under the conditions prescribed in the Crown Liability Act. In the context of this case it must be shown that a servant or agent of the Crown caused damage by his fault or was liable in tort. A potential plaintiff might advance three arguments:

(1) Servant or agent of the Crown

It might be argued that Dr. Cameron was a servant or agent of the Crown for whose torts or delicts the Crown is vicariously liable. The evidence shows clearly that Dr. Cameron was neither a servant nor an agent of the Crown. Consequently the Crown cannot be liable on that basis.

(2) Authorization or ratification

It might also be contended that the tortious conduct of Dr. Cameron was authorized or ratified by servants or agents of the Crown. By using this analysis a potential plaintiff would endeavour to attach secondary liability to the

servant or agent and thereby fix vicarious liability on the Crown. Secondary liability, whether by way of authorisation or ratification, is imposed only where the person sought to be made secondarily liable possesses knowledge that the acts alleged to have been authorised or ratified were tortious in nature. The evidence here is, however, bereft of any suggestion that any governmental official, whether servant or agent, knew of the tortious character of Dr. Cameron's research and treatment (assuming such tortious character could be proved in the first instance). It therefore follows that this approach would not result in a finding that the Crown was legally liable in respect of Dr. Cameron's research.

(3) Duty to control

The third avenue of attack for potential plaintiffs is to assert that a servant or agent of the Crown owed a duty to them to control the conduct of Dr. Cameron. The courts have recently enlarged the concept of "duty" in cases of this kind. A plaintiff could now arguably maintain that there is some legal basis upon which a granting agency might be legally liable to the

patient in the event medical research goes wrong. (It is interesting to note that the National Cancer Institute of Canada has recently decided to require grantees and their institutions to sign forms of indemnity by which the NCI is held harmless in the event suit is brought against it for the research activities of its grantees: See Appendix 52 attached.) Although this expansion of the concept of duty has probably not yet run its full course in the courts, and may well in future years be developed to the point where plaintiffs might succeed in a case of this kind, I do not consider that the law as it presently stands would permit a plaintiff to recover. My reasons follow.

The courts recognize such a duty only in two types of case:

(i) where there is a "special relationship" between the defendant on whom such a duty is sought to be imposed and the third party, here Dr. Cameron, and

(ii) where there is a "special relationship" between the defendant and the plaintiff.

In the first case, there is a "special relationship" (and a duty is imposed) only where there is a right and ability to control the third party. The provision of research funds to Dr. Cameron does not carry with it a "right and ability" to control him, and thus there was no "special relationship" between the Crown and Dr. Cameron.

As for the second case, there is no "special relationship" between a potential plaintiff and the Crown.

C. Conclusion

It therefore follows that in the circumstances the Crown is not legally liable for the conduct of Dr. Cameron, assuming such conduct could be proved tortious in the first instance.

D. Limitation of Actions or Prescription

The legal analysis above and in Appendix 51 has been carried out without regard to the provisions of any applicable law limiting the right of a plaintiff to bring action because of the passage of time.

E. Civil Law

Mr. James M. Mabbutt, Counsel, Constitutional and International Law, Department of Justice has reviewed Appendix 51 and has confirmed that, from a Quebec civil law viewpoint, the conceptual analysis is complete and accurate and supports the conclusion of no delictual liability. While I take responsibility for the legal research necessary to formulate this opinion, I am not qualified to practice in the Province of Quebec, and I have therefore relied on Mr. Mabbutt's opinion in so far as conclusions stated herein are controlled by the law of Quebec.

10. THE WIDER RESPONSIBILITIES OF GOVERNMENT

A. Further discussion of the "penultimate question" - whether Dr. Cameron's treatments were proper or improper

Two points arise here: whether the treatments were irresponsible or reckless even on the assumption Cameron had no knowledge of CIA involvement; and the question of that involvement.

On the first point, Dr. Cameron must have known that the large doses of electric shock applied in the depatterning procedure, and the large number of seizures produced,

could result in brain damage. It was well known at the time for example that epileptics subjected to many seizures often suffered brain damage. And psychic driving was largely untried.

On the other hand, it would appear that the patients selected for these treatments were very disturbed, and that other psychiatric procedures had failed to help them. To the extent that patients' individual medical records might show on examination that some individuals who were not severely disturbed were subjected to the treatment, then for such cases it might be said that the treatments bordered on the irresponsible. I of course have not seen, nor have I sought, information relating to any of the former patients at the Allan, and consequently any conclusions would be in the realm of speculation.

Given the standards of the time, and allowing for his ambition, and based on the interviews I have conducted, the files I have reviewed and especially on the opinion of the three experts with whom I have consulted, I have reached the view that Dr. Cameron was operating within those standards. Perhaps the conclusion that comes closest to the truth is that he acted incautiously, but not irresponsibly. Most psychiatrists did not make the mistakes he did in developing and applying the depat-terning and psychic driving techniques, but this was out

of a sense of caution in the face of the highly intrusive and extremely intensive nature of the treatments.

As for the second point, all medical treatments (even aspirin) involve a balancing of pros and cons, an exercise of judgment. Very few treatments are wholly innocuous. A patient is entitled to a physician's judgment, exercised on behalf of the patient and no one else, as to whether the proposed treatment constitutes a reasonable "cost-benefit". Were Dr. Cameron's assessments carried out on the patients' behalf, or for other purposes? I have not seen enough evidence to allow a factual conclusion to be drawn on this point; and of course one cannot read the heart, even after all the evidence is in. In my view, the evidence that is available is consistent with the conclusion that he did in fact exercise his judgement on his patients' behalf.

B. <u>The "ultimate" question -- the Crown's responsibility</u>

I turn now to the ultimate question. Let us assume, contrary to my own conclusion, that Dr. Cameron did in fact carry out procedures on patients for some purpose other than the patients' benefit. Alternatively, and less menacingly, let us assume that Dr. Cameron did in fact blur the distinctions among experimentation, new techniques intended to be therapeutic (therapeutic trials), and routine treatment. Let us further assume in

both cases that some individual patients were not helped but suffered damage. On these assumptions, the question is: Does the Government of Canada bear any moral responsibility towards those patients?

In my opinion, given the climate of the times, and the prevailing practices as to medical research and experimentation, ethics and consent, the Government of Canada cannot be expected to bear responsibility for what happened at the AMI, even assuming (contrary to my own conclusion on the point) that Dr. Cameron crossed over the line of the acceptable in medical research. The government's research grants were at all times subject to reviews both internal and external; no adverse comments were brought to the attention of those responsible.

The granting agencies did not know - and could not know - of any ulterior motive on Cameron's part (assuming there was one). Nor, given the way these questions were commonly dealt with at the time, did they know - or could they know - of any failure on Dr. Cameron's part to observe the distinctions among experimentation, therapeutic trials and routine treatment.

It is difficult to see how moral responsibility can lie on the government in such a situation.

In Appendix 53 will be found a discussion of the question of compensation in the absence of legal or moral responsibility.

11. FINAL CONCLUSIONS

For the reasons stated in sections 9 and 10, in my opinion the Government of Canada bears no legal or moral responsibility for the activities of Dr. D. Ewen Cameron. I repeat that this conclusion does not mean that no one has a cause of action on the ground that some particular course of treatment was inappropriate for the illness being treated, or inexpertly or improperly administered.

I will conclude with a statement of Lord Denning, M.R., a statement roughly contemporaneous with the matters in issue here, in Roe v. Minister of Health, [1954] 2 Q.B. 66, at pp.83-84, cited by Bourgeois, J. in the Morrow case:

> "It is so easy to be wise after the event and to condemn as negligent that which was only a misadventure. We ought always to be on our guard against it, especially in cases against hospitals and doctors. Medical science has conferred great benefits on mankind, but these benefits are attended by considerable risks. We cannot take the benefits without taking the risks. Every advance in technique is also attended by risks. Doctors, like the rest of us, have to learn by experience; and experience often teaches in a hard way. Something goes wrong and shows up a weakness, and then it is

> put right. That is just what happened here. Dr. Graham sought to escape the danger of infection by disinfecting the ampoule. In escaping the known danger he unfortunately ran into another danger. He did not know that there could be undetectable cracks, but it was not negligent for him not to know it at that time. We must not look at the 1947 accident with 1954 spectacles."

and later, at pp. 86-87:

> "One final word. These two men have suffered such terrible consequences that there is a natural feeling that they should be compensated. But we should be doing a disservice to the community at large if we were to impose liability on hospitals and doctors for everything that happens to go wrong. Doctors would be led to think more of their own safety than of the good of their patients. Initiative would be stifled and confidence shaken. A proper sense of proportion requires us to have regard to the conditions in which hospitals and doctors have to work. We must insist on due care for the patient at every point, but we must not condemn as negligence that which is only a misadventure."

In my view, this passage is particularly appropriate in the circumstances under review in this opinion.

Yours very truly,

George T.H. Cooper

APPENDICES

Appendices 4, 5 and 6 are reproduced with this opinion. The full appendices are available at the following locations:

Department of Justice Regional Offices

Medical Faculty libraries

Major Municipal Libraries

Law Libraries

LIST OF APPENDICES

14. D. EWEN CAMERON, LEONARD LEVY, THOMAS BAN & LEONARD RUBENSTEIN - A Further Report on the Effects of Repetition of Verbal Signals Upon Human Behaviour. Canadian Psychiatric Association Journal, Vol. 6, No. 4, August 1961

15. D. EWEN CAMERON, J.G. LORENZ & K.A. HANDCOCK - The Depatterning Treatment of Schizophrenia. Comprehensive Psychiatry, Official Journal of the American Psychopathological Association, Vol. 3, No.2, April 1962

16. D. EWEN CAMERON, LEONARD LEVY, THOMAS BAN & LEONARD RUBENSTEIN - Automation of Psychotherapy. Comprehensive Psychiatry, Official Journal of the American Psychopathological Association, Vol. 5, No.1, February 1964

17. L. LEVY, D.E. CAMERON, T. BAN & L. RUBENSTEIN - The Effects of Long-term Repetition of Verbal Signals. Canadian Psychiatric Association Journal, Vol. 10, No. 4, August 1965

18. Dr. Cameron's grant application to the Society for the Investigation of Human Ecology, Jan. 21, 1957

19. Extracts from and discussion of material in a Ministerial Return by Hon. J. Waldo Monteith, Minister of National Health and Welfare, on the subject of LSD (undated: 1962 or 1963)

19A. NRC grants-in-aid for psychiatry

20. Report concerning communist "brainwashing" techniques during the Korean War, Sept. 14, 1950

21. Minutes of June 1, 1951 Canada/US/UK meeting re: communist "brainwashing" techniques during the Korean War

22. DRB file materials on research by Dr. Donald O. Hebb on sensory deprivation experiments

23. DRB file materials, correspondence and news clippings

24. DRB report to Treasury Board, August 3, 1954

25. Letter from Dr. Cormier to Dr. Hebb, Dec.1, 1953

26. Health and Welfare application form and memoranda on research grants

27. HWC response to ATI request, showing nine Mental Health Division research projects listing the name of Dr. Ewen Cameron as principal investigator - April 5, 1985

28. Final report on Project No. 604-5-14

29. Final report on Project No. 604-5-432

30. Summary of Project No. 604-5-13

31. File document and abstract on Project No. 604-5-74

32. Newspaper article - Dr. Heinz E. Lehman - May 16, 1964

33. Memorandum to the Hon. Paul Martin, Jan. 18, 1949

34. Memorandum of Dr. Charles Roberts, April 8, 1953

35. Newspaper article - Dr. D.E. Cameron - May 15, 1957

36. Extracts from Dr. Robert A. Cleghorn's private papers

36A. Journal extracts on Dr. D.E. Cameron - 1965 and 1967

37. Extracts from paper by Dr. J.W. Fisher (undated: 1952 or 1953)

38. A.E. SHWARTZMAN & P.E. TERMANSEN - Intensive Electroconvulsive Therapy: A Follow-up Study. Canadian Psychiatric Association Journal, Vol.12, No.2, 1967

38A. Extract from Kalinowsky and Hoch, "Shock Treatments, Psychosurgery and Other Treatments in Psychiatry", 1957

39. "Ethics in Human Experimentation", Medical Research Council of Canada's Working Group on Human Experimentation, Report No.6, 1978

40. Current MRC guidelines for grant application, and Ethics Certificate

41. Application form of Dr. D. Ewen Cameron for Project No. 604-5-433

42. Consent forms, Orlikow and Morrow cases, and for two other U.S. plaintiffs

43. "Patients's Rights and Ethics Committee, Douglas Hospital Centre", by Wilson & Steibelt. Canada's Mental Health, Vol.33, No.3, September 1985

44. Affidavit of John Marks dated April 30, 1981, filed in the Superior Court of Quebec in the Orlikow case

45. Internal CIA memorandum on MK Ultra Subproject 68, Feb.26, 1957

45A. Letter of Col. James L. Monroe to Dr. Cameron, April 23, 1959

45B. Internal CIA documents on funding of MK Ultra Subproject 68

46. Chapter 8, "Brainwashing", from John Marks, "The CIA and Mind Control: The Search for the 'Manchurian Candidate'," McGraw-Hill, 1980

47. External Affairs memo to file, March 1, 1984

48. Note from the U.S. Embassy to Canada, April 12, 1984

48A. Newspaper article, Dr. D.E. Cameron, Calgary Herald, May 15, 1957

48B. External Affairs letter of June 15, 1979 and materials on McGill's view of Dr. Cameron's work

48C. Internal CIA memorandum from General Counsel to Robert H. Wiltse, October 31, 1978

49. Summary of the Orlikow case

50. Summary of the Morrow case

51. Memorandum of law

52. Memorandum of the National Cancer Institute of Canada, October, 1985

53. Memorandum on Compensation in the Absence of Legal or Moral Responsibility

Appendix 4

REPORT TO GEORGE T.H. COOPER, Q.C.

I - THE WORK OF DR D.E. CAMERON

From the early fifties to the mid sixties, Dr D. Ewen Cameron had been working at the Allan Memorial Institute of Montreal on modifying the behaviour of chronic psychoneurotic patients by utilizing a psychotherapeutic procedure which he called *"psychic driving"*.

At the IIIth annual meeting of the American Psychiatric Association in Atlantic City, May 11, 1955, Dr D.E. Cameron read a paper entitled: *"Psychic Driving: Dynamic Implant"* * in which he describes his psychotherapeutic technique:

"Briefly, it is the exposure of the patient to continued replaying, under controlled conditions, of a cue communication derived from one of the original areas from which his current difficulties arise. A major consequence of such exposure is to activate and bring progressively into his awareness more recollections and responses generally from this area. The ultimate result is the accelerating of therapeutic reorganization".

Subsequently, Dr D.E. Cameron and al read papers on this subject at meetings of learned societies such as the Canadian Psychiatric Association, the American Psychiatric Association, the Royal Medico-Psychological Association, the

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* This paper was subsequently published in Psychiatric Quart 31: 703-712, 1957.

World Congress of Psychiatry and published the results of this work in journals such as the Canadian Psychiatric Association Journal, the American Journal of Psychiatry and the Journal of Mental Science. **

In two of his papers, Dr D.E. Cameron acknoledged the assistance of grants from the Society for the Investigation of Human Ecology and from Dominion-Provincial Mental Health Grand Project no 604-5-432.

The description of the technique, the reporting of the results, and the theoretical frame work of Dr D.E. Cameron's work can best be found in my opinion in a chapter entitled: *"Repetition of verbal signals in Therapies"* published in *"Current Psychiatric Therapies"* Ed. J. Masserman, Greene & Stratton, N.Y. - London, 1961. I shall summarize this chapter with my personal comments in bracket.

A) THE PROCEDURE:

1.- Selection:

Chronic psychoneurotics who have failed to respond to other methods of treatment.

(At that time particularly in North America the treatment of choice of such patients was psycho-analysis or psycho-analytically oriented psychotherapy. In general with the techniques available at the time the treatment was long and expensive. Dr Cameron believed that with his technique he could reduce the length of treatment and thus the cost. Furthermore I should add that such patients are for the most competent and submit to treatment on a voluntary basis).

** The reader will find in appendix I a bibliographical listing of Dr D.E. Cameron publications on the subject.

2.- Assessment:

a) The conventional psychiatric interview or the psychiatric interview carried out under disinhibiting drugs together with a record of the patient's evaluation of himself.

(Since the end of the second world war desinhibiting drugs such as sodium amytal a barbiturate or desoxyin an amphetamine were often used in the fifties to uncover repressed psychological material or to obtain emotional abreactions. I would add that in the fifties many psychiatrists and psychologists were experimenting with hallucinogenic drugs such as LSD 25 or mescaline as desinhibiting drugs or drugs that could induce a model psychosis)

b) Social Service report.

c) Psychological tests.

d) Movies taken in four differents and standardized situations.

e) A battery of conditioned reflex tests.

f) Electronic analysis of the voice.

(In spite of all the gadgetry none of those tests could be considered intrusive with a potential for harm).

3.- Preparation of the patient.

Three principal methods of preparing the patient were utilized by Dr Cameron.

a) The depatterning by means of prolonged sleep and intensive electroshock.

b) Small doses of tubocurare in beeswax given intra-muscularly to produce relative immobilization on the part of the patient in order to maintain him in the area of repetition.

c) Putting the patient under an ordinary hospital baker producing a relaxing degree of warmth.

(The preparation of the patient is may be the most controversial aspect of Dr Cameron's procedure of psychic driving because of its intrusiveness. However Dr Cameron believed in the necessity with the intractable psychoneurotic patient of breaking down his long standing maladaptive patterns of behaviour and thus facilitating the establishment of new and more adaptive patterns by exposure to repetition or psychic driving.

By today's standards depatterning especially by intensive electroshock is repugnant. However in the context of the time the methods of psychiatric treatment were very intrusive particularly the biological interventions such as Insulin Therapy and continuous narcosis. It it true that those intrusive methods were utilized essentially with psychotic patients rather than with the psychoneurotics although prolonged sleep was wuite popular in Europe with the latter).

4.- The preparation of signals:

The material of the signals is derived from the following sources: psychodynamic interviews, reports from relatives, social service studies and psychological tests. On the basis of all those reports negative and positive statements are prepared and recorded. The negative statements face the patient with the neurotic difficulties

from which he has attempted to escape, while the positive signals represent his aspiration to be a more effective person. They are phrased as far as possible in terms of the patient's own thoughts and in the idiom he has used to express his hopes and longings.

5.- Presentation of signals:

These statements are recorded and played continuously from 6 AM to 9 PM daily. During this period the patient is lying in bed and listening to the recording - which is fully audible - by means of a pillow speaker. It is estimated that the negative and positive signals combined are repeated between 250,000 and 500,000 times during the course of the exposure.

The negative signals which are run first are ordinarely accepted by the patient during the first few days but there gradually appears an increasing degree of hostility towards them which reaches a crescendo at the end of ten days. The patient is then switched to the positive signals which he accepts at once with a sense of relief and he continues to demonstrate this satisfaction for a varying period. However he soon becomes restless and irritable, wanting to be up and around and putting his new found behavioral pattern into practice.

The period of exposure to the negative and positive statements usually last about ten days each.

6.- Reinforcements:

During the period of exposure to intensive psychic driving the staff working with the patient are briefed concerning the nature of the changes that are being sought and instructed to give encouragement and social acceptance on the appearance of such changes. Concurrently the Social Service Department works with the family in an attempt to change their attitudes towards the patient.

Once the intensive driving has been terminated, the patient remains on positive driving from two to four hours a day. During the remainder of the day he works in occupational therapy where he is encouraged by the staff to put into practice the new behavioral pattern.

In many instances plans are made for the patient to be discharged in selected foster homes rather than in their own home for a period of three months until a new behavioral pattern has been firmly established.

7.- Reassessment:

Subsequent to the patient's return home a reassessment is carried out for a follow up period of at least a year. The patient attends the Institute and listen to his recording for at least one hour twice or three times a week.

B) THE RESULTS:

In this paper, Dr Cameron reports:

"With regard to results in different categories of illness we may say that the extent of the changes which we have been able to produce in chronic schizophrenics was small. Our best results have been with the chronic psychoneurotics - and other wise untreatable patient - patients, usually with a long standing character neurosis. With these patients our results have been increasingly encouraging and we now consider that the procedure of our choice when faced with such a cases".

C) THEORETICAL CONSIDERATION:

The work of Dr D.E. Cameron are based on the following theoretical constructs:

1) The human organism is exceptionally adaptive and tends to respond to all in coming stimuli.

2) Exposure to constant repetition constitutes a powerful force and from the uncontrolled effects of this force the human organism attempts to protect itself.

3) There are a large number of mechanism, both at the behavioral and at the neurophysiological levels which exists simply for this purpose.

II - THE SCIENTIFIC VALUE OF DR D.E. CAMERON WORK ON PSYCHIC DRIVING

The theoretical frame work of Dr D.E. Cameron is quite weak and somewhat naïve based on a over simplified extrapolation

of neurophysiological concepts to a complex behavioral level.

Also from a methodological stand point the testing of the therapeutic value of this treatment was totally uncontrolled based essentially on biased subjective evaluation and on irrelevant pseudo-objective parameters such as movies taken in four different and standardized situation, a battery of conditioned reflex tests and the use of the plethysmograph to measure skin resistance.

By to day standards this was bad science with heavy reliance on gadgetry rather than on reflective scientific thinking.

III - THE ETHICS OF DR D.E. CAMERON EXPERIMENT

A) BY TO DAY STANDARDS:

Dr Cameron would have had to submit to the following procedure before being allowed to carry out his experiment:

1) Submission of the project to the hospital research committee:

There is a good chance that Dr Cameron project would have been stopped at this level because of poor methodology and muddled theoretical basis.

2) Evaluation by the Hospital Ethics Committee:

Three principles would be taken into consideration

before granting approval to the project.

a) Voluntariness:

The committee would have to be assured that the patients participating in the project would be doing it on a completely voluntary basis without any form of coercion. The ethics committee would also have to be assured that the patient could withdraw from the project at any time.

b) Informed consent:

The ethics committee would have to be assured that the patient participating in Dr Cameron's experiment gives a written informed consent to his participation after the procedure and the rationale of the experiment were clearly explained to him with all the risks and benefits clearly stated.

c) Benefit to the patient:

With this type of experiment the ethics committee would have to be satisfied that the patient could derive a substantial and direct therapeutic benefit after all other non intrusive methods had failed. I believe that under present conditions Dr Cameron would have had a great deal of difficulties dotay in obtaining approval from a Hospital Ethics Committee to carry out his work because of its intrusiveness and the present availability of a range of new therapeutic techniques.

B) BY THE STANDARDS OF THE FIFTIES:

In my opinion it would be a mistake to believe that

ethical considerations in human experimentation were not present at the time. However in this period when medical paternalism was still prevailing the ethics of an experimental procedure were very much left to the judgement and the conscience of the researcher and his associates. No formal procedures were in force.

In 1865, Claude Bernard * wrote on human experimentation:

> *"Experiments, then, may be performed on man, but within what limits? It is our duty and our right to perform an experiment on man whenever it can save his life, cure him or gain him some personal benefit. The principle of medical and surgical morality, therefore, consists in never performing on man an experiment which might be harmful to him to any extent, even though the result might be highly advantageous to science, i.e., to the health of others. But performing experiments and operations exclusively from the point of view of the patient's own advantage does not prevent their turning out profitably to science... For we must not deceive ourselves, morals do not forbid making experiments on one's neighbor or on one's self. Christian morals forbid only one thing, doing ill to one's neighbor. So, among the experiments that may be tried on man, those that can only harm are forbidden, those that are innocent are permissible, and those that may do good are obligatory".*

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* Claude Bernard, An Introduction to the Study of Experimental Medicine (1865). Trans. by Henry C. Green (New York: Dover Publications, 1957).

This in my opinion were the prevailing ethical considerations at the time when Dr Cameron carried out his work and I believe that he adhered to it because he was convinced that those chronic psychoneurotics who had not been helped so far could gain from submitting to psychic driving. There is no doubt in my mind after reviewing carefully Dr Cameron's papers on the subject that therapeutic consideration were paramount in his motives although I personaly disagree and disagreed then with the intrusiveness and lack of scientific rigor of his work.

IV - THE ROLE AND THE RESPONSABILITIES OF THE GOVERNMENT OF CANADA

The Government of Canada funded Dr Cameron's work through the Dominion-Provincial Mental Health grants which I believe were administered at the time by the Mental Health Division in the Department of National Health and Welfare.

There is no doubts that the scientific standards of the peer review committee set up by the Mental Health Division were not as rigorous as today's Medical Research Council. However Canadian Psychiatry was very much at that time in its infancy, the Allan Memorial Institute was very much its Mecca and to some extent Dr D.E. Cameron was its prophet.

In my opinion in spite of all the media noise there is no evidence that psychic driving did any irreparable harm to patients who voluntary submitted to it. The Canadian Government should not bare any moral responsability for supporting a project that was essentially therapeutic in its aims.

FG/da
December 1985

Frédéric Grunberg, m.d., F.R.C.P. (C)
Professor, Dept of Psychiatry
University of Montreal

- BIBLIOGRAPHY -

1.- D. EWEN CAMERON - Psychic Driving. American Journal of Psychiatry, 112 (7), 1956

2.- D. EWEN CAMERON - Psychic Driving: Dynamic Implant. Psychiatric Quart 31: 703-712, 1957

3.- D. EWEN CAMERON & ROBERT B. MALMO - Effect of repeated verbal stimulation upon a flexer-extenser relationship. Canadian Psychiatric Assoc. Journal, Vol. 3, NO 2, April 1958

4.- D. EWEN CAMERON, LEONARD LEVY, L. RUBENSTEIN & R.B. MALMO - Repetition of verbal signals: behavioural and physiological changes. American Journal of Psychiatry, 115 (11), 1959

5.- D. EWEN CAMERON, LEONARD LEVY & LEONARD RUBENSTEIN - Effects of repetition of verbal signals upon the behaviour of chronic psychoneurotic patients. J. Ment. Sci, 106, no 443, April 1960

6.- Proceedings - The Third World Congress of Psychiatry, Montreal, Canada - 4/10 June 1961, University of Toronto Press, McGill, University Press

7.- D. EWEN CAMERON, LEONARD LEVY, THOMAS BAN & LEONARD RUBENSTEIN - Repetition of verbal signals in therapy: in current psychiatric therapies. Ed. J. Masserman, Greene & Stratton, New York, London 1961

8.- D. EWEN CAMERON, LEONARD LEVY, THOMAS BAN & LEONARD RUBENSTEIN - A further report on the effects of repetition of verbal signals upon human behaviour. Canadian Psychiatric Association Journal, Vol. 6, no 4, August 1961

9.- D. EWEN CAMERON, LEONARD LEVY, THOMAS BAN & LEONARD RUBENSTEIN - Comprehensive Psychiatry. Official Journal of the American Psychopathological Association, Vol. 5, No 1, Fevruary 1964

10.- L. LEVY, D.E. CAMERON, T. BAN & L. RUBENSTEIN - The effects of long-term repetition of verbal signals. Canadian Psychiatric Association Journal, Vol. 10, no 4, August 1965

CURRICULUM VITAE

NOM: GRUNBERG, Frédéric Marié et père de deux enfants

Adresse: 4065 Côte des Neiges, app. 6, Montréal, Québec H3H 1W7

Téléphone: 937-6926 (résidence)
253-8200 poste 219 (bureau)

Titre: professeur, département de psychiatrie
Faculté de médecine, Université de Montréal
coordonnateur du Service de l'enseignement universitaire
Hôpital Louis-H. Lafontaine

Date de naissance: 21 avril 1927 Nationalité: canadienne

Lieu de naissance: Alexandrie, Egypte

ETUDES:

Secondaires:

Institutions	Année	Diplômes
Lycée français d'Alexandrie	1944	Baccalauréat (1ère partie)
Lycée français d'Alexandrie	1945	Baccalauréat (2e partie, philosophie)

Universitaires:

Institutions	Année	Diplômes	Discipline
Université de Montpellier, Faculté des Sciences	1946	PCB	Certificat des sciences physiques, chimiques et biologiques
Université de Montpellier, Faculté de Médecine	1952	Doctorat	Médecine

Post-universitaires:

Université de Londres, Institute of Psychiatry	1956	DPM	Diploma in psychological medicine

.../2

FORMATION HOSPITALIERE:

Date	Hôpitaux	Service	Fonction	Responsable
01-53 09-53	Bethlem Royal Londres	Psychiatrie générale	Clinical Assistant	A. Harris, M.D., D.P.M.
10-53 09-54	Maudsley Hospital Londres	Psychiatrie générale Professo-rial Unit	Senior House Cfficer	A. Lewis, M.D., F.R.C.P.
10-54 03-55	Maudsley Hospital Londres	Psychiatrie infantile	Registrar	K. Cameron, M.D., F.R.C.P. (Ed.)
04-55 09-55	Maudsley Hospital Londres	Psychothé-rapie	Registrar	K. Taylor, M.D., D.P.M.
10-55 03-56	Guy's Hospi-tal Londres	Neurologie Neuro-chi-rurgie	Registrar	Murray Fulconer, F.R.C.S.
04-56 06-56	Maudsley Hospital Londres	Psychiatrie légale	Registrar	P. Scott, M.D., D.P.M.

LICENCES, CERTIFICATS, FELLOWSHIPS:

1956 London University: Academic Post Graduate Diploma in Psychological Medecine

1957 Collège Royal des Médecins et Chirurgiens du Canada, Certificat - psychiatrie

1958 Licence du Conseil Médical du Canada

1958 Licence du Collège des Médecins et Chirurgiens de la Saskatchewan

1961 Licence du Collège des Médecins et Chirurgiens de l'Alberta

1970 Licence du département de l'Education de l'Etat de New York (médecine)

1974 Fellowship du Collège Royal des Médecins et Chirurgiens du Canada

1976 Licence de la Corporation Professionnelle des Médecins du Québec

.../3

LICENCES, CERTIFICATS, FELLOWSHIPS (suite):

1977 Certificat de spécialité en psychiatrie, Corporation Professionnelle des Médecins Spécialistes du Québec

TITRES:

1954 Prix de thèse "Montpellier Medical"

Lauréat de la Faculté de Médecine de Montpellier

1968 Award of Honor - Letchworth Village Chapter, New York State Association of Retarded Children Inc.

1973 Meritorious Service Award, New York State Dept of Mental Hygiene

1973 Meritorious Service Award, New York State United Cerebral Palsy

EXPERIENCE:

Date	Institution ou organisme	Poste occupé
1956 à 1958	Reginal General Hospital, Munroe Wing	Senior psychiatrist
1958 à 1960	Swift Current Mental Health Clinic, Sask.	Directeur
1960 à 1962	Yorkton Mental Health Clinic, Sask.	Directeur
1962 à 1964	Sask. Hospital Weyburn	Surintendant
1964 à 1966	Sask. Dept of Public Health Hospitals Branch	Directeur
1966 à 1967	Sask. Dept of Public Health, Psych. Serv. Branch	Directeur
1967 à 1973	New York Dept of Mental Hygiene, Albany, New York	Deputy Commissioner
Avril 1973 à 1976	Albany Medical College, Albany, New York	Professeur agrégé Chef de service
1976 à 1981	Université de Montréal, Département de psychiatrie, Faculté de médecine.	Professeur agrégé
1981 à date	Hôpital Louis-H. Lafontaine	Coordonnateur du Service de l'enseignement universitaire
	Université de Montréal, Département de psychiatrie, Faculté de médecine.	Professeur titulaire

.../4

SOCIETES SAVANTES ET COMITES:

Date	Organisme	Titre
1957	Association des Médecins de Langue Française du Canada	Membre
1958	Association Médicale du Canada	Membre
1958	Association des Psychiatres du Canada	Membre
1958	Collège des Médecins et Chirurgiens de la Saskatchewan	Membre
1961	Collège des Médecins et Chirurgiens de l'Alberta	Membre
1963	Collège Royal des Médecins et Chirurgiens du Canada	Membre du Comité de spécialité en psychiatrie
1964	Gouvernement du Canada, Ottawa Ministère de la Santé et du Bien-être Comité Consultatif de l'Assurance Hospitalière	Membre
1964	Advisory Council to the College of Medecine - University of Saskatchewan	Membre
1965	Gouvernement du Canada Ministère de la Santé et du Bien-être Comité technique ad hoc sur le fond des ressources de la Santé	Membre
1965	Gouvernement de la Saskatchewan Comité ad hoc sur l'éducation du "nursing"	Membre
1966	Association des Psychiatres du Canada	Membre du Conseil d'administration
1967	State of New York Department of Mental Hygiene Committee on the recodification of the Mental Hygiene Law	Membre
1968	Letchworth Village Chapter, New York State Association for Retarded Children, Inc.	Award of Honor
1972	Collège Royal des Médecins et Chirurgiens du Canada	Fellow
1972	Royal College of Psychiatrists	Membre

.../5

SOCIETES SAVANTES ET COMITES:

Date	Organisme	Titre
1973	State of New York, Dept of Mental Hygiene	Meritorious service citation
1973	State of New York United Cerebral Palsy	Meritorious service award
1973	American Academy of Psychiatry & Law	Membre
1978	Collège Royal des Médecins et Chirurgiens du Canada	Membre du jury français aux examens de spécialité en psychiatrie
1978	Société Médico-psychologique	Membre Associé étranger
1980	Association du Québec pour les Déficients Mentaux	Membre du Conseil d'administration
1982	American Psych. Association	Fellow
1984	Canadian Psychiatric Association	President elect

PUBLICATIONS:

I- ARTICLES:

F. GRUNBERG

Les correlations psychosomatiques en physio-pathologie générale

(Thèse - Faculté de médecine de Montpellier - Décembre 1952)

PRIX DE THESE - MONTPELLIER MEDICALE 1954.

C. GROS, B. VLAHOVITCH, F. GRUNBERG

L'Hémisphérectomie dans l'Hémiphlégie infantile

(La semaine des hôpitaux, annales de chirurgie) 29e année, no 2 - 18 février 1953.

C. GROS, J. CADILHAC, B. VLAHOVITCH, F. GRUNBERG

La sympathectomie pré-ganglionnaire dans les syndromes douloureux post-traumatiques du membre supérieur

(Montpellier Chirurgicale I, 1-1952 pp. 55-59)

F. GRUNBERG, D.A. POND

Conduct Disorders in epileptic children

.../6

PUBLICATIONS (suite)

(J. of Neurology, Neurosurgery and Psychiatry, 1957, 20, 65.)

F. GRUNBERG, T.F. WARD

Geriatric patients in a general hospital psychiatric unit

(Canad Med Ass J 81 360-4, 1 septembre 1959)

F. GRUNBERG

A community mental health clinic

(Canad Nurse 56 209.13, March 1960)

HANLEY, F.W., GRUNBERG, F.

Reflections on the doctor-patient relationship

(Canad Med Ass J 86 1002-4, 2 June 1962)

KELM, H., GRUNBERG, F., HALL, R.W.

A reexamination of the Hoffer-Ormond diagnostic test

(Int J Neuropsych 1:307, 12 Aug 1965)

LAFAVE, H.G., HERJANIC, H., GRUNBERG, F.

One year follow-up of 67 chronic psychiatric patients

(Canad Psych Ass J 11: 205-11, June 1966)

LAFAVE, H.G., STEWARD, A.P., GRUNBERG, F., et al.

The Weyburn experience: reducing intake as a factor in phasing out a large mental hospital

(Compr psychiat 8: 239-48, Aug 1967)

CASSELL, W.A., GRUNBERG, F., FRASER, H.N.

The discharged chronic patient's utilization of health resources: a preliminary report

(Canad Psych Ass J 13:23.9, Feb 1968)

STEWART, A., LAFAVE, H.G., GRUNBERG, F., et al.

Problems in phasing out a large public psychiatric hospital

(Amer J Psychiat 125: 82-3, 1968)

.../7

PUBLICATIONS (SUITE):

CASSELL, W.A., SMITH, C.M., GRUNBERG, F., et al.

Comparing costs of Hospital and Community Care

(Hosp & Com Psychiat 23-7, 1972)

GRUNBERG, F.

Who Lives and Dies?

(The New York Times, Op Ed Page, April 22, 1974)

GRUNBERG, F., LAFAVE, H.

La fin de l'asile

(Information psychiatrique, vol. 50, no 5, mai 1974)

GRUNBERG, F.

Les grandes contestations juridiques de l'antipsychiatrie aux Etats-Unis

(Union Médicale du Canada, Tome 105, 935-941, juin 1976)

F. GRUNBERG, BURTON I. KLINGER AND BARBARA GRUMET

Homicide and Deinstitutionalization of the Mentally Ill

(Am J Psychiatry 134:6, June 1977)

J. FUENTES BIGGI, U. GOETZL, F. GRUNBERG

Psicosis toxica de larga duraction por phencyclidina

(Archivos de Neurobiol, 40, 2 (117-122), 1977.

II -

F. GRUNBERG, UGO GOETZL, BERNARD BERKOWITZ

Lithium Carbonate in the Management of Hyperactive Aggressive Behavior of the Mentally Retarded

Comprehensive psychiatry Nov./Dec. 1977, vol. 18

F. GRUNBERG, BURTON, I. KLINGER, BARBARA R. GRUMET

Homicide and community-based psychiatry, Journal of Nervous and Mental Disease, 1978, vol. 166, no 12

III - LIVRES:

PSYCHIATRY - A concise textbook for primary care practice
Ed. Alan M. Kraft, m.d. - Arco Publishing Co. New York 1977

Chapitres rédigés:

- SITUATIONAL STRESS, UGO GOETZL and FREDERIC GRUNBERG pp. 39-47

.../8

III - LIVRES (suite):

- PERSONALITY DISORDERS, FREDERIC GRUNBERG, M.D.
  pp. 62-70

- MENTAL RETARDATION, FREDERIC GRUNBERG, M.D.
  pp. 177-186

MENTAL RETARDATION AND DEVELOPMENTAL DISABILITIES - IX
Ed. Joseph Wortis, m.d. Brunner/Mazel Publishers New York, 1977

Chapitre rédigé:

- WILLOWBROOK: A VIEW FROM THE TOP, FREDERIC GRUNBERG, M.D.
  pp. 46-52

PSYCHIATRIE CLINIQUE: APPROCHE CONTEMPORAINE
Pierre Lalonde et Frédéric Grunberg, Gaëtan Morin, éditeur, Chicoutimi 1980.

IV - COMMUNICATIONS:

Lafon, R., Gros, B., LaBauge, R., Paleirac, R., Grunberg, F.

La Cisternographie
(Soc. d'électro-radiologie Médicale du Littoral Méditerranéen, Nice. 26-27: 1: 1952)

Euziere, G., Gros, C., La Bauge, R., Cadihlac, J., Grunberg, F., Vlahovitch, B.

Les formes psychiatriques des tumeurs cérébrales
(Soc. Sciences Médicales et Biologiques de Montpellier)
Séance du 14 mars 1952

Lafon, R., Gros, C., Minvielle, J., Billet, B., Grunberg, F., Vlahovitch, B.

Eosinophilie sanguine et traitement psychiatrique
(Soc. Sciences Médicales et Biologiques de Montpellier)
Séance du 25 avril 1952

Vidal, J., Lafon, R., LaBauge, R., Minvielle, J., Barjon, P., Grunberg, F.

Deux cas d'intoxication aiguë volontaire par compose amphétaminiq
(Soc. Sciences Médicales et Biologiques de Montpellier)
Séance du 3 mai 1952

.../9

IV - COMMUNICATIONS (suite):

Gros, C., Lafon, R., LaBauge, R., Cadilhac, J., Minvielle, J., Grunberg, F.

Récidive de méningiome temporo-occipital gauche d'expression psychiatrique prédominante
(Soc. Sciences Médicales et Biologiques de Montpellier)
Séance du 3 mai 1952

Gros, C., Cazaban, R., Cadihlac, J., Vlahovitch, B., Grunberg, F.

Ramollissement calcarinien chez un syphilitique. Etude clinique et anatomique.
(Soc. Sciences Médicales et Biologiques de Montpellier)
Séance du 27 juin 1952

Grunberg, F., LaFave, H., et al.

Reducing the population of a Mental Hospital
Communication au Congrès Annuel de l'Association des Psychiatres du Canada, Vancouvert, juin 1964

Grunberg, F.

Financial arrangements as they affect the distribution of Mental Health Services
Communication à la Conférence Nationale des Services de la Santé Mentale
Ottawa, 7 janvier 1966

Grunberg, F.

Psychiatry and anti-psychiatry
Grand Rounds, dept of psychiatry, Albany Medical College,
Dec. 1973

Grunberg, F.

Reform of the Mental Health System Through Court Litigations: An American Experiment
(Communication au Congrès Annuel de l'Association des Psychiatres du Canada, Ottawa, septembre 1974)

Grunberg, F.

Legal Activism and Psychiatry
Grand Rounds at Allen Memorial Institute, McGill University,
10 avril 1974

.../10

IV - COMMUNICATIONS (suite):

Grunberg, F.

Homicide and Mental Illness
Grand Rounds, Dept of Psychiatry, Albany Medical College,
28 septembre 1976

Grunberg, F., Klinger, B., Grumet, B.

Homicide and the Deinstitutionalization of the Mentally Ill
Communication à l'assemblée annuelle de l'American
Academy of Psychiatry and Law, San Francisco, 25 octobre 197

Grunberg, F.

Ethical Considerations on the Tarasoff Decision: Should
Therapists Warn the Potential Victims of their Patients?
Symposium on Ethics in Medicine, Albany Medical College,
January 13-15, 1976

Grunberg, F.

Le patient qui refuse de se soumettre à un examen psychiatriq
Communication au Congrès Annuel de l'Association des Psychiat
du Québec, Trois-Rivières, 7 juin 1979.

FG/da
le 9 septembre 1980.
Revisé le 19 mars 1982.

... annexe

PUBLICATIONS ET COMMUNICATIONS:

A)
- Grunberg, F. L'angoisse et l'insomnie. Communication présentée au Symposium de l'Association des pharmaciens du Québec, Québec, 11 octobre 1981.

- Grunberg, F. Le psychiatre dans les années 80. Communication présentée dans le cadre du centenaire du centre hospitalier Douglas, Montréal, 25-26 novembre 1981.

- Grunberg, F. Les différentes écoles de pensée psychiatrique. Présentée aux membres du département de médecine générale, hôpital Louis-H. Lafontaine, 14 janvier 1982.

- Grunberg, F. Pourquoi les femmes sont-elles tellement plus déprimées que les hommes? Présentée au personnel médical et para-médical de l'hôpital Louis-H. Lafontaine, 10 février 1982.

- Grunberg, F. et coll. Le suicide "Guérir le suicide?" Présentée dans le cadre d'Actuelles à la radio CBF-FM, 29 janvier 1982

- Grunberg, F. Aspects pratiques du traitement des dépressions en présentant l'usage des divers médicaments antidépresseurs et les autres modalités de traitement biologique, tel que l'électrochoc. Il a aussi examiné les diverses interventions d'orcre psychologique et sociale. Université de Montréal, Faculté de l'éducation permanente - Les Belles Soirées" 10 février 1982.

- Grunberg, F. Perspective on the care of the longer-term mentally ill an overview statement. Association Canadienne pour la Santé Mentale, Toronto, 24-26 février 1982.

- Grunberg, F. Le DSM III... ajoute-t-il à la précision du diagnostic clinique. Colloque de mise à jour sur les nouveaux moyens diagnostiques en psychiatrie. Association des Psychiatres du Québec, 26 mars 1982.

B)
- Demontigny, C., Grunberg, F., Mayer, A., Deschênes, J.-P. Lithium Induces Rapid Relief of Depression in Tricyclic Antidepressant Drug Non-Responders. Brit. J. Psychiat 138, 1981.

- Grunberg, F., Moamaï, N. Desmarais, G., Gagné, E. Examen psychiatrique sous ordonnance de cour à propos des patients qui refusent de se soumettre à un examen psychiatrique. Revue Canadienne de psychiatrie. Accepté pour publications 09-81

COMMUNICATIONS LORS DE CONGRES, SYMPOSIUMS, CONFERENCES, etc.

	Titre	Occasion (congrès, Association, etc.)	Date	Communication (a) à caractère scientifique (b) à caractère de vulgarisation	Publiée (Indiquer par un X si se retrouve dans autre rubrique
1.-	Conduites de manipulation	Conférence interdisciplinaire Institut Philippe Pinel de Mtl	1978	A	
2.-	Conduites délirantes	Conférence interdisciplinaire Institut Philippe Pinel de Mtl	1978	A	
3.-	Introduction aux classifications diagnostiques Introduction aux classifications des troubles majeurs (modérateur de la journée du symposium)	Symposium sur les psychoses fonctionnelles Organisé par l'A.P.Q. en collaboration avec les départements de psychiatrie des Univ. Laval, McGill, Montréal et Sherbrooke	10-79	A	
4.-	"Sociology of Psychiatric Care"	CSAA session Saskatchewan Health, University Hosp., Saskatoon	1980	A	
5.-	Prédiction de la dangerosité en psychiatrie	Echange France-Québec Hôpital Chenevier à Créteil, France	11-80	A	
6.-	Homicide et psychiatrie communautaire	Echange France-Québec Hôpital de la Colombière, Montpellier, France	12-80	A	
7.-	Concept de la psychiatrie moderne, évolution historique, approche actuelle, milieu de travail comme instrument de réadaptation, ses effets bénéfiques.	Congrès - Ass. des Médecins du Travail du Québec Journée sur le stress, l'alcool et la maladie psychiatrique en milieu de travail	11-80	A	
8.-	Réflexion sur la prédiction de la dangerosité en psychiatrie	Hôpital Notre-Dame, Montréal Conférence interdisciplinaire	2-81	A	
9.-	Violence et psychiatrie	Hôtel-Dieu de Lévis, Québec Réunion mensuelle des psychiatres du Québec	3-81	A	

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COMMUNICATIONS LORS DE CONGRES, SYMPOSIUMS, CONFERENCES, etc.

COMMUNICATIONS LORS DE CONGRES, SYMPOSIUMS, CONFERENCES, etc.

	Titre	Occasion (congrès, Association, etc.)	Date	Communication (a) à caractère scientifique (b) à caractère de vulgarisation	Publiée (Indiquer par un X si se retrouve dans autre rubrique
10.-	Animateur - journée d'auto-évaluation psychiatrique PKSAP-IV	APQ - journée d'auto-évaluation (Association des Psychiatres du Québec)	3-81	A	
11.-	The future of the Mental Hosp.	Hôpital Douglas, Montréal	4-81	A	
12.-	Le patient qui refuse de se soumettre à un examen psychiatrique	Congrès annuel de l'Association des Psychiatres du Québec, Trois-Rivières	6-79	A	

PUBLICATIONS (suite)

1982

- Grunberg, F. Pourquoi les femmes sont-elles tellement plus déprimées que les hommes? Présentée au personnel de l'hôpital Louis-H. Lafontaine dans le cadre du programme d'enseignement multidisciplinaire, 10 février 1982

- Grunberg, F. Classification des maladies mentales. Présentée aux membres du département de médecine générale, hôpital Louis-H. Lafontaine, 3 juin 1982.

- Grunberg, F. Chômage. Nouvelles TVA, Télé-métropole, 9 juillet 1982

- Grunberg, F. "La crise de la quarantaine". La Vie Quotidienne, Radio-Canada, 30 septembre 1982

1983

- Grunberg, F. Conférence présentée à Ottawa au Ottawa General Hospital. "A new approach to the problem of suicide". 26 janvier 1983

- Grunberg, F. Participation au débat sur la dépression à l'émission Forum, Télé-métropole, 5 mars 1983

- Grunberg, F. Psychiatry grand rounds " The judiciary dimension in the hospitalization of psychiatric patients in Montreal", Centre hospitalier de St-Mary, 17 mars 1983

- Grunberg, F. Participation au débat sur les droits des malades mentaux à l'émission Forum, Télé-métropole, 19 mars 1983

- Grunberg, F. Participation au symposium international sur la schizophrénie et sa famille, 22 et 23 septembre 1983

- Grunberg, F. Préside une séance lors du symposium "Neurotransmetteurs Cérébraux et Psychiatrie" organisé à l'intention des psychiatres cliniciens du Canada, Québec, les 22 et 23 octobre 1983

- Grunberg, F. "The chronic mental patients: is there a future for them?" conférence présentée à "Association of relatives and friends of the mentally and emotionally ill

Montreal Inc", Montréal, le 24 octobre 1983

- Grunberg, F. Participation à une conférence de formation médicale continue: Violence - prédiction et implications légales, Centre hospitalier Douglas, le 8 décembre 1983

1984

- Grunberg, F. Symposium: "Benzodiazepine Therapy Today", Four Seasons Hotel, Toronto, Ont. - "Benzodiazepine Side Effects (Rebound Anxiety and Insomnia, Accumulation, Amnesia), 16 avril 1984

- Grunberg, F. Dans le cadre d'une journée d'information "Les patients sous ordonnance du Lieutenant-gouverneur: aspects cliniques et légaux" il a présenté: Réflexion d'un psychiatre siégeant à la Commission d'examen, Hôtel Reine-Elizabeth, 19 octobre 1984

1985

- Grunberg, F. "Législation et le réseau des services psychiatriques" Cours en santé mentale. Programme de la Maîtrise en Santé communautaire du département de médecine sociale et préventive, Université de Montréal, 30 janvier 1985

- Grunberg, F. "La judiciarisation des maladies mentales" présentée au Congrès de l'Association des hôpitaux du Québec les 14 et 15 mars 1985

- Grunberg, F. Participation au colloque sur "Les aspects médico-légaux dans la pratique psychiatrique courante", Le titre de sa conférence: "Logique légale versus logique psychiatrique". Colloque organisé de concert avec l'Institut Philippe Pinel et l'hôpital Louis-H. Lafontaine, 26 et 27 avril 1985

- Grunberg, F. Participation au congrès de l'A.P.Q. Il a présenté "Le suicide et la maladie mentale", les 14 et 15 juin 1985

FG/da
le 5 juillet 1985

Appendix 5

UNIVERSITY OF SASKATCHEWAN

DEAN OF MEDICINE

SASKATOON, CANADA
S7N 0W0

Ref. File No. _____

January 8, 1986

Mr. George T.H. Cooper
P.O. Box 730
1673 Bedford Row
Halifax, N.S.

Dear Mr. Cooper:

This letter is in response to telephone discussions I had with you in late November, the substance of which was set down in your letter of November 26, 1985. In this letter you set out the questions you wished answered regarding the Allan Memorial Institute, and specifically the practice of its late Head, Dr. Ewen Cameron.

In addressing your questions, I should record certain caveats I feel must be taken into consideration by anyone when reading my opinions on the specific issues being addressed.

In the first place, I did not know Dr. Cameron personally. Although I met him on one occasion socially I did not have the opportunity to hear him at scientific meetings or professional gatherings. As a result, any observations I make are based solely on those papers of Dr. Cameron's that I was able to obtain.

Secondly, my opinion of Dr. Cameron's research competence is based on a small sample of the total number of papers published during the course of his career. The sample did include, however, papers relating to his research into "Psychic Driving" and "Depatterning". It would appear that these were two major areas of interest to him during the latter part of his career.

Finally, my opinions regarding "the directions in which psychiatric research was heading at the time", and particularly the status of medical ethics at the time, are based to some extent on personal experience, but to a larger degree, on my evaluation of the research papers that were published in the three major national psychiatric publications, namely, the Journal of the Canadian Psychiatric Association, the Journal of the American Psychiatric Association, and the Journal of Mental Science (subsequently to become the British Journal of Psychiatry). I chose as my criterion year 1962 as this was the year in which Dr. Cameron's paper on "The Depatterning Treatment of Schizophrenia" was published in "Comprehensive Psychiatry" (April 1962).

In my opinion, in order to understand the level of development of psychiatric theory and practice in the 1960's, one must view it against the background of developments in medicine as a whole. The tremendous growth in clinical and basic medical research which occurred following World War II was stimulated not only by the development of new technologies, but also by the wedding of clinical medicine with biostatistics. This development led to increased rigour in medical research, which in turn impacted on all areas of medicine, including Psychiatry. There was, however, a lag in the development of psychiatric research as was noted in the introduction to Report #42 (1959) of the Group for the Advancement of Psychiatry. In this report it was stated "in comparison with other fields, psychiatry does not have the strong research tradition oriented to systematic emperical investigation of important problems. At the same time, we do have a great need for immediately applicable working formulations which offer some guide to treatment. These conditions favor quick and often premature closure with plausible hypotheses provided by respected authorities. In time, it may be easily forgotten that they are unverified hypotheses and they come to be treated as established fact. It is however true, in Psychiatry as in other scientific fields, that authority is no substitute for evidence." (the underlining is mine). I think this latter statement is particularly applicable to the work of Dr. Cameron.

The review of the indexed psychiatric journals of 1962 would indicate to me a movement towards greater precision in the diagnosis and classification of psychiatric disorder; greater interest in population studies of patients with particular disease entities; increasing interest in the search for physiological correlates of behaviour and increased interest in the evaluation of treatments. The general thrust represented, in my mind, a departure from the period that immediately followed World War II when psychoanalytic and socio-cultural theories of behaviour were in the forefront of psychiatry and biological psychiatry was relegated to the background. Unquestionably the introduction of tranquillizers and subsequently the antidepressants sparked a renewed interest in the biological basis of behaviour and brought psychiatry and the neurological sciences closer together. However, the transfer of the research methodologies of the so-called hard sciences (e.g. Biochemistry, Neurophysiology, etc.) to psychiatric research was confounded by numerous difficulties, not the least of which was the lack of generally accepted classification of mental disorder. Indeed, this inability to agree upon diagnostic criterion was to present a major obstacle to the generation and sharing of new information about psychiatric illness. Undoubtedly this contributed to the lag in the development of psychiatric research.

In reviewing these journals and a number of textbooks of the day, it was obvious that psychiatry in the late 1950's and '60's continued to use treatments which had historical but not scientific legitimacy. This is amply illustrated in an article in the American Psychiatric Association Journal of 1962 by an emminent British Psychiatrist who expounded on the significant contributions to patient care provided by such treatments as lobotomy, coma insulin, amphetamines and barbiturates. Within a few years, of course, all of these treatments had fallen into disrepute either because of the lack of evidence of effectiveness or

because the risks attendant upon their use far outweighed what therapeutic value (if any) was derived from their use. Even electroconvulsive therapy, then in wide use and currently still considered an effective treatment for a limited number of conditions, was generally accepted even in the absence of any scientifically valid measure of its effectiveness. Indeed, Kendel, in a recent publication, indicated that of all the countless studies involving the use of ECT, only ten met his criteria as being truly "scientific".

In the late 1950's and early '60's psychiatric research as we know it today, was in its infancy. There were relatively few centers with established research departments or programs. Although there were increasing numbers of reports on new treatments, the quality of these studies was distressingly low. This was particularly true of clinical trials of new drugs. The Allan Memorial Institute was one of the few North American Institutions that was committed to the development of both psychiatric research and psychiatric researchers. It was acknowledged to be the leading academic psychiatric centre in Canada. It also enjoyed an enviable reputation in the United States and abroad. Certainly much, if not most, of the credit for its early reputation belonged to Dr. Ewen Cameron. Dr. Cameron was recognized by his peers as being one of the leaders, if not the leader, of Canadian psychiatry. His reputation was built on his early achievement in organizing psychiatric services in Brandon, Manitoba during the 1930's, and his development of a teaching and research program at the Allan Memorial Institute in the 1940's and 1950's. He was able to attract a coterie of bright young psychiatrists, many of whom subsequently became heads of academic departments in North America or were to make their name in fields of teaching or research. Cameron had an impeccable background. Cameron received his M.B. at the University of Glasgow and in 1925 received his Diploma in Psychological Medicine from the University of London. In 1936 he received his M.D. "with distinction" from the University of Glasgow. In 1937 he was elected Fellow of the American Psychiatric Association. Insofar as his psychiatric training was concerned, he received his initial training at the University of London in 1925 receiving his DPM, and in 1926 was a Henderson Research Fellow at the Phipps Clinic in Baltimore. He also spent some time at the Burghoelzli Clinic. This was an internationally renowned psychiatric training centre. From 1929 to 1936 he was the Director of the Provincial Mental Hospital in Brandon. From 1936 to 1938 he was a Resident Director of Research at Worcester State Hospital, and from 1938 to 1943 he was Professor of Neurology and Psychiatry at the Albany Medical College in New York. In 1943 he was appointed Professor and Head of the Department of Psychiatry, University of McGill. In a biographical sketch written by Dr. Gregory Zilboorg in the American Psychiatric Association Journal, 1953, it was noted that by that time he had authored 80 articles and "several books". A review of his curriculum vitae reveals that he quickly climbed the academic ladder. His overall position in the profession is attested to by the fact that he was elected to head three prestigious psychiatric organizations; the Canadian Psychiatric Association, the American Psychiatric Association, and the World Psychiatric Association. In short, whatever his shortcomings as a person, he obviously was a credible figure professionally.

It would appear that Cameron had an interest in both Neurology

and Psychiatry. This was not uncommon in those days, as many psychiatrists had dual training. Although not a psychoanalyst, he, like many of his contemporaries, borrowed freely from psychoanalytic concepts, such as the role of the unconscious, intrapsychic conflict, etc. Like many of his contemporaries, his theorizing reflected both psychoanalytic and biological interests. Certainly his work in depatterning and psychic driving would reflect this orientation. Cameron was not alone in this, however, as Lawrence Kubie and the renowned Walter Penfield co-operated in efforts at finding a structural basis for psychoanalytic concepts.

In evaluating Cameron's work in the 1950's and early 1960's, it is important to look at the relationship that existed between the patient, the family and the physician (psychiatrist). Although I have no hard evidence to support this, it is my impression that the public acceptance of physicians at that time was high. Again, it is an impression, not a fact, that the psychiatrist was held in particular awe by the patient and/or their family (although not by the public). I think this relationship derived from the sense of mystery and ignorance that surrounded mental disorders. That the psychiatrist, through methods unfamiliar to them (unlike the general practitioner) could make sense out of what frequently was an irrational situation, served only to enhance his position. Frequently the family abdicated its responsibility for determining what was best for the patient. They were quite happy to transfer this responsibility to the psychiatrist or the medical superintendent. It has been my experience that by and large, psychiatrists honoured this trust and that their treatment of patients was determined by commitment in what they thought was best for the patient. Unfortunately, events would indicate that their idea of what was "best for the patient" was based on inadequate theory and scientific evidence. Unfortunately, confronted with enormous demands for their services and a paucity of effective treatments, the psychiatrist, in the 1950's and early '60's, frequently resorted to new treatments that had not yet demonstrated (scientifically) their effectiveness but held out the promise of "cure". In my opinion, this was quite understandable.

In spite of the advent of tranquillizers, Schizophrenia remained an enigma to the psychiatrists of the 1950's and 1960's. It may explain why Dr. Cameron, mindful of his leadership goal, would choose to tackle this difficult and perplexing problem. In reviewing the past experience with the treatment of schizophrenics, he noted the distressingly high rate of relapse. He surmised that this was due to one of two causes; either inadequate initial treatment or lack of appropriate after-care. He obviously felt that schizophrenics should be given intensive treatment initially. He believed that schizophrenia was the result of learned maladaptive thinking. His object, therefore, was to "depattern" the patient's thought processes through the use of three techniques: 1) massive electroconvulsive therapy, 2) continuous sleep and 3) maintenance elecro therapy. None of these techniques was new. Massive ECT had been used (sparingly) since 1946 and continuous sleep treatment had enjoyed a vogue some ten to fifteen years previously. Neither were, at the time of Cameron's experiments in the 1960's, generally in use and one might conclude from this that they were not generally accepted. Maintenance ECT, however, while not universally accepted, did have a modest following, but was soon to be replaced by major tranquillizers and

antidepressants. Electroconvulsive Therapy itself was widely used and generally accepted as being effective in a variety of psychiatric disorders. It was generally given three times a week until such time as there was a significant improvement in the patient's clinical state. On the whole, it would mean some 8 to 12 treatments, (not infrequently less and occasionally more). The introduction of muscle relaxants in ECT enabled increasing numbers of patients to receive this treatment, who had previously been excluded on medical grounds. ECT continues to be used in psychiatric treatment, albeit for a restricted group of disorders.

In summary then, the treatment techniques used by Cameron in his depatterning experiments had previously been used in psychiatry. Although by 1962 I would think that only maintenance ECT still enjoyed any vogue whatsoever.

During the late 1950's and early '60's great changes took place in the care of the mentally ill. Simultaneous with the introduction of new and effective chemotherapy, there was recognition of the possible harmful effects of long-term hospitalization. This raised the expectation among psychiatric professionals of finding new and effective methods for reducing the length of stay, and indeed, even preventing the admission of patients suffering from psychiatric disorder. The acquisition of effective treatment methods had a significant impact on the morale of people working in mental hospitals. They saw their facility changing from that of a warehouse to that of an active treatment and rehabilitation centre. The demand for newer and more effective drugs stimulated a spate of drug trials. However, clinical trials, using psychiatric patients and particularly outpatients, were found to be fraught with difficulties. It was difficult to collect significant number of outpatients to draw statistically valid conclusions. In addition, psychiatric patients were notoriously non-compliant, making it difficult to determine whether they were taking their medication or not. Psychiatric outpatients were also inclined to drop out of treatment studies because of lack of motivation, secondary to the disease process. It was understandable then, that faced on the one hand with the problems of designing and implementing scientifically rigorous clinical trials on an outpatient basis, and on the other hand, with the need to find answers to pressing clinical problems, many researchers turned to the mental hospitals and psychiatric units for subjects of clinical research. By using inpatients of large provincial hospitals the methodological problems of patient numbers, compliance, attrition rates, were significantly reduced.

Patient advocacy and patient rights were not significant issues in psychiatric practice in the late 1950's and early 1960's. Mental health legislation, while providing the opportunity for the appeal of commitment procedures, did not incorporate patient advocacy within Provincial Mental Health Acts. The patient and/or their family were left to their own devices (perhaps with the assistance of their lawyer) in dealing with conflicts between themselves and hospital authorities. This placed many families in a difficult situation, as they were frequently totally dependent upon the institution for care of their family member. For this reason, "consent for treatment", either by or on behalf of the patient could be open to question as to whether or not it was truly freely given.

Dr. Cameron's research activities would seem, in my opinion, to reflect the standards of his day. While his research methodology as presented in his papers was seriously flawed, it was not significantly worse than that of others appearing in the literature at that time. Psychiatric reports of the time frequently were lacking in specific and precise diagnostic criteria and standardized outcome measures. As an illustration of this point, I refer you back to Kendel's evaluation of research done on ECT.

The topic of Cameron's research (e.g. schizophrenia) was an appropriate one as it represented one of the major clinical problems facing psychiatrists of the day. His belief that prompt and adequate tratment, and a well monitored after-care program as essential ingredients to reducing the degree of disability in schizophrenics would appear reasonable. His method of achieving this, however, I think is seriously open to question because of the use of two techniques which carried a not inconsiderable risk and which hitherto had not been established as being effective.

In commenting on the ethics of psychiatric research, past and current, one must first of all review developments in all research involving use of human subjects. Certainly the revelations of the abuse of human subjects in so-called medical research carried out in Germany and Japan during the second world war sensitized the medical and scientific communities to the need for a universal code of ethics. The evolution of this code is described in the Medical Research Council of Canada Report #6 (1978), "Ethics in Human Experimentation". The first set of guidelines would appear to have been the Nuremburg Declaration, which of course arose out of the proceedings involving war crimes trials in the late '40's. Subsequent to this, the Declaration of Helsinki (1964 and 1974) was adopted by the World Medical Association as a set of guidelines governing human experimentation. Finally, a working group established in 1977 by the Medical Research Council of Canada proposed guidelines applicable to research carried on in Canadian institutions by Canadian researchers.

I will not discuss MRC Report in detail as it is readily available to you. I would point out only that this report established that the sine qua non for all research involving human subjects is that it be scientifically valid. "Without scientific merit, placing human beings at risk to perform an experiment cannot ethically be justified". The report goes on to discuss a variety of issues such as "informed consent", the use of "captive" subjects, the use of one's own patients in research, and the ethical responsibilities of the investigator, the institution and the granting agency. In addition to setting out ethical guidelines the report also proposes procedures for implementation, such as the establishment of institutional ethics committees, and the documentation in grant applications to the Medical Research Council of the fact that ethical issues have been considered and resolved to the satisfaction of the investigator and the institutional ethics committee. It is my opinion, based primarily on my experience in the College of Medicine, University of Saskatchewan, that these guidelines are adhered to and have resulted in increased sensitivity to ethical issues related not just to medical research but to patient care in general. In my opinion, had these

guidelines been in place at the time of Cameron's work in the Allan Memorial, I have serious doubts as to whether he would have been able to proceed with his work. Certainly not in the fashion described in his papers.

It is difficult to compare ethical practices of the present with those in the past. Certainly this is especially true in research. The major source of information we have about research are the reports published in scientific journals. Unfortunately, the issue of how patients are "recruited" into research programs is rarely addressed. True, there are some papers, notably those in psychology, where the use of "volunteers" is specifically stated. But even here one must raise a note of caution as the use of "volunteers" does not necessarily guarantee that such issues as informed consent have been satisfactorily addressed. (see Halushka v the University of Saskatchewan, Dominion Law Report 53 (20, 436-466 (1965). Because of the above, I feel that I can only make a general statement about the ethical standards of medical and psychiatric research. I believe it is now quite clearly recognized that the responsibility for ensuring the quality (both from scientific and ethical standpoints) of research involving human beings lies jointly with the investigator, the institution in which he works, and the granting agency that supports his research activity. In my opinion, all three could and would be currently held accountable for research projects that do not meet the current standards of research practice in Canada. We have arrived at this point through gradual evoluation as witness the report of the Medical Research Council's working group. Certainly the case of Halushka v University of Saskatchewan would indicate that the present ethical standards were not universally applied in 1964. For this reason I have some question as to whether these obligations were as clearly identified or as clearly acknowledged by researchers, institutions or granting agencies in the 1950's and early 1960's. I think this was particularly true in psychiatric research which admittedly lacked the tradition of research in other areas in medicine. This may partially explain the apparent indifference of Cameron and others, to what are now held to be essential safeguards of patients' rights.

I hope that this addresses most of the issues identified in your letter of November 26.

Yours truly,

I.M. McDonald, M.D.,
Dean of Medicine.

CURRICULUM VITAE

FOR

McDONALD, Ian Maclaren

Department of Psychiatry

1. PERSONAL:

   Born May 20, 1928
   Employee No. 33885

2. ACADEMIC CREDENTIALS:

   M.D., University of Manitoba, 1953, College of Medicine

3. OTHER CREDENTIALS:

   F.R.C.P.(C), Royal College of Physicians and Surgeons of Canada, Psychiatry, 1972

4. APPOINTMENT(S) AND PROMOTIONS (U OF S):

   Assistant Professor of Psychiatry, Without Term, 1958-62, College of Medicine
   Associate Professor of Psychiatry, Tenured, 1962, College of Medicine
   Professor of Psychiatry, Tenured, 1967, College of Medicine
   Head, Department of Psychiatry, Tenured, 1971 to present, College of Medicine

5. ASSOCIATE MEMBERSHIPS:

   Nil

6. LEAVES:

   Leave, Edinburgh, Scotland, 1967 to 1968

7. HONOURS (MEDALS, FELLOWSHIPS, PRIZES):

   Fellow, American Psychiatric Association
   Post-Doctoral Fellow, Edinburgh University, 1967 to 1968
   Sandoz Visiting Professor
   Canadian Mental Health Association - Special Recognition Award

8. PREVIOUS POSITIONS RELEVANT TO U OF S EMPLOYMENT:

   Instructor in Psychiatry, University of Colorado, School of Medicine, 1957 to 1958
   Resident (Chief), Colorado Psychopathic Hospital, University of Colorado, 1956 to 1957
   Fellow in Neurology, University Hospital, University of Saskatchewan,

1955 to 1956
Resident, Munroe Wing, Regina General Hospital, 1954 to 1955
Resident, Crease Clinic, Essondale, British Columbia, 1953 to 1954

9. TEACHING RECORD:

Undergraduate Education:
MMSI - 2 to 3 mornings per year
Med. II - 301B - Lectures (1 hr x 13); Tutor in small groups (2 hrs x 13)
Med II - 350A - 2 hr seminar
Med III & IV - 3 hrs/week (1 student for each 8-week period)
Med V - JURSI Seminars, Supervision of JURSI Ward Responsibilities and Outpatient Consultations

Postgraduate Education:
Seminar Teaching
Supervision of Inpatient and Outpatient Interviews and Treatment

Home Care Conferences:
- Involves meeting with Home Care Nurses for 1 1/2 hrs every 3 months to discuss caseload (also on p.r.n. basis)

10. THESES SUPERVISED:

Nil

11. BOOKS, CHAPTERS IN BOOKS, EXPOSITORY AND REVIEW ARTICLES:

nil

12. PAPERS IN REFEREED JOURNALS:

PUBLISHED:

I.M. McDonald, 1971. Diagnostic Significance of Physical Signs Produced During E.C.T. Canadian Medical Association Journal, 104, 311-312.

I.M. McDonald, 1970. Psychiatry and the Law. Laval Medical Journal, 41, 775-783.

D.G. McKerracher, C.M. Smith, F.E. Coburn and I.M. McDonald, 1966. General Practice Psychiatry. College of General Practice of Canada Journal, 12, 38-41.

D.G. McKerracher, C.M. Smith, F.E. Coburn and I.M. McDonald, 1965. General Practice Psychiatry. The Lancet, November, 1005-1007.

I.M. McDonald and M. Perkins, 1966. A Controlled Comparison of Amitriptyline and Electro-Convulsive Therapy in the Treatment of Depression. American Journal of Psychiatry, 22, p. 1427, June.

ACCEPTED:

Nil

13. PAPERS IN NON-REFEREED JOURNALS:

PUBLISHED:

Nil

ACCEPTED:

Nil

14. INVITED PAPERS IN PUBLISHED CONFERENCE PROCEEDINGS AND ABSTRACTS:

Nil

15. CONTRIBUTED PAPERS IN PUBLISHED CONFERENCE PROCEEDINGS AND ABSTRACTS:

Nil

16. TECHNICAL REPORTS RELEVANT TO ACADEMIC FIELD:

Nil

17. BOOK REVIEWS:

Nil

18. INVITED LECTURES OUTSIDE U OF S AND INVITED CONFERENCE PRESENTATIONS:

I.M. McDonald, 1979. Community Psychiatry. November 25, Yellowknife, North West Territories.

I.M. McDonald, 1978. Confidentiality in Psychiatry. Canadian Psychiatric Association, Halifax, Nova Scotia.

I.M. McDonald, 1977. Psychiatry and the Law

I.M. McDonald, 1977. Suicide

I.M. McDonald, 1968. Student Mental Health, University of Calgary, Calgary, Alberta.

I.M. McDonald, 1968. The Medical Aspects of Privilege, University of Calgary, Calgary, Alberta.

19. PRESENTATIONS AT CONFERENCES (Non-Invited):

Nil

20. PATENTS GRANTED OR PENDING:

Nil

21. RESEARCH GRANT INFORMATION:

Nil

22. ARTISTIC EXHIBITIONS OR PERFORMANCES:

Nil

23. PROFESSIONAL PRACTICE:

Administrative Responsibilities:

Clinical Department Heads in the College of Medicine traditionally have dual responsibilities both as Heads of Academic Departments and Heads of Clinical Departments of University Hospital. As such, they are responsible to two governing Boards; namely those of the University of Saskatchewan and University Hospital. However, Psychiatry has a third line of accountability and that is to the Minister of Health. In that the Clinical Department is designated as a 'facility' under the Mental Health Act and the Department Head is designated as Medical Officer-in-Charge, he is by law, accountable to the Minister of Health to ensure that the regulations and provisions of the Mental Health Act are carried out in accordance with the law. In Saskatoon an anomalous situation exists in that the Head of the Department of Psychiatry at University Hospital is also Medical Officer-in-Charge for the two other designated facilities (the Psychiatric Ward at City Hospital and for the Regional Psychiatric Centre). In fact, then, the Head of the Department of Psychiatry is responsible for the quality of all inpatient care in the Saskatoon catchment area. This includes the 254,000 population in the Saskatoon Mental Health Region as well as those inmates of the Federal and Provincial Correctional systems who may be treated at the Regional Psychiatric Centre. The duties of the Medical Officer-in-Charge entail the monitoring of all clinical activities in these centres with particular emphasis on those involving treatment of involuntary patients. It should be noted that in this province this function is normally carried out by a Regional Director in the Psychiatric Services Branch. However, in the Saskatoon catchment area this function of the Regional Director is carried out by the Head of the Department of Psychiatry at University Hospital.

Service Responsibilities:

The Head of the Department of Psychiatry is responsible for the provision of inpatient, outpatient, day care, home care activities; as well as the provision of psychological, social work and occupational activities within this Department and in other departments of the hospital where psychiatric patients may be treated. This results in a number of people reporting directly to the Department Head; namely, the Clinical Director of 5DE, the Head Nurse of 5DE; Head of Social Work of 5DE; Head of Occupational Therapy of 5DE; Head of Clinical Psychology; Head of Division of Child and Youth Psychiatry; Coordinator of Community Adolescent Program; Head of Home Care; Coordinator of McKerracher Day Care

Centre; Head of Psychiatric Services in the Student Health Centre and Head of Forensic Services in the Department of Psychiatry.

Educational Activities:

As academic Head of Psychiatry, the Department Head is responsible to the College of Medicine and the University of Saskatchewan for providing Undergraduate and Graduate Teaching Programs in Psychiatry in both the Medical School and for the Royal College Residency Training Program. The Department of Psychiatry is involved in teaching programs in Regina and Saskatoon. The Undergraduate Programs in Regina involve final year (JURSI) students. The Department of Psychiatry is also responsible for providing Residency Training for Psychiatric Residents as well as Family Practice Residents in both Saskatoon and Regina. The Department is also involved in various outreach programs in providing continuing education to District Medical Societies, to Refresher Courses, and for In-Service Programs within University Hospital and other hospitals throughout the province.

The Department Head delegates responsibilities for the various educational programs to the Directors of Undergraduate Education (Saskatoon and Regina); to the Directors of Graduate Training in Psychiatry (Saskatoon and Regina); the Coordinator of Residency Training in Psychiatry for Family Practice (Saskatoon and Regina).

Research:

The Department Head is responsible for encouraging and facilitating the development and carrying out of research activities both at basic and clinical levels. As such, he has close liaison with the Research Division of the Psychiatric Services Branch, Department of Health, which is physically located within the Department of Psychiatry and whose senior members hold appointments in the academic department.

Planning:

The Department of Psychiatry is reponsible for developing innovative programming in the area of psychiatric care. As such, it must work in close liaison with the Department of Health. In accordance with this working relationship, the Department Head and various members of the Department are involved in many government planning committees, including such areas as the provision of Forensic Services, Child and Youth programming, Community Care and Hospital Care.

It should be pointed out that the Saskatoon catchment area (Mental Health Region) is a self-contained catchment area and may not use mental hospital beds at Saskatchewan Hospital, North Battleford, for backup. This places a very heavy service burden on the Department of Psychiatry, being the major inpatient resource; and, an extra burden on the Department Head in his joint role as Head of the University Hospital Department and the Medical Officer-in-Charge of all three inpatient units in the City of Saskatoon.

24. CONSULTING WORK UNDERTAKEN:

Consultant to British Columbia Department of Health re Psychiatric Emergency Services in Victoria, March, 1981

Consultant to University of B.C. re Organization of Psychiatric Services in the Department of Psychiatry, Health Sciences Centre Hospital, September to November, 1981

25. DEPARTMENTAL AND COLLEGE COMMITTEES:

Phase II Curriculum Committee, Member, 1976 to present
Pharmacy Committee, Chairman
Medical Staff, President
Medical Advisory, Chairman
Discipline Committee, Chairman
Medical Audit Committee, Member
Abortion Committee, Member
Admissions Committee, Member, 1966-67
Sub-Committees on Curriculum Committee and Forward Planning, Member, 1966
Continuing Medical Education, Member, 1962-64
Library Committee, Member, 1960-62

26. UNIVERSITY COMMITTEES:

Advisory Committee on Student Health, Member
Campus Committee on Alcoholism, Member
Co-ordinating Committee, RPC, Chairman, July, 1981 to present
Tenure Appeal Committee, Chairman, May-July, 1981

27. PROFESSIONAL AND ASSOCIATION OFFICES AND COMMITTEE ACTIVITY OUTSIDE UNIVERSITY:

Member, Highway Traffic Safety Committee, College of Physicians and Surgeons of Saskatchewan
Member, Mental Health Committee, College of Physicians and Surgeons of Saskatchewan
Member, Review Panel, National Parole Service, Canada
Member, Advisory Committee on Mental Health, Department of National Health and Welfare
Secretary, Section on Psychiatry and Federal Agencies, Canadian Psychiatric Association
Member, Alcoholism Commission of Saskatchewan
Chairman, Alcoholism Commission of Saskatchewan
Member, Provincial Review Board
Member, Criminal Justice Coordinating Committee
Vice-Chairman, Liaison Committee re Establishment of Regional Psychiatric Centre in Saskatoon (Canadian Penitentiary Service)
Consultant to National Parole Board
Consultant to Canadian Penitentiary Service
Chairman, Examining Board of Registered Psychiatric Nurses Association
Member, Examining Board of Saskatchewan Association of Social Workers
Chairman, Sub-Committee on Confidentiality for Canadian Psychiatric

Association
Member, Consultative Group on Mental Health Research, Department of National Health and Welfare
Member, Canadian Psychiatric Association
Member, Saskatchewan Psychiatric Association
Member, American Psychiatric Association
Member, Canadian Medical Association
Member, Saskatchewan Medical Association
Member, Vanier Institute of the Family
Chairman, Mental Health, Saskatchewan Association, Task Force, 1980-81
Consultant to Department of Health, re PSB Programmes, 1981
Consultant to the Canadian Association of Mental Retardation, Toronto, 1981

28. PUBLIC AND COMMUNITY CONTRIBUTIONS:
UNIVERSITY RELATED:

Community Psychiatry - Central Butte, Humboldt, Rosthern
Lectures at Saskatchewan Hospital, North Battleford

NOT UNIVERSITY RELATED:

Member, Alcohol Commission of Saskatchewan
Chairman, Alcohol Commission of Saskatchewan
Co-Director, International School of Alcohol Studies
Mental Health Committee, Saskatchewan Medical Association
Highway Traffic Safety Committee, Saskatchewan Medical Association
Chairman, Task Force on Mental Health Services in Saskatchewan, Mental Health Saskatchewan Association, 1980-82
Member, Working Party on Mental Health Services to the Elderly; Mental Health/Saskatchewan, 1980-81
Consultant to National Institute on Mental Retardation (New Brunswick), Bonner Case, February 1980
Consultant to Minister of Health, Rivett Enquiry, Saskatchewan Hospital, North Battleford, 1978

Appendix 6

Faculty of Medicine
University of Toronto
Office of the Dean

January 9, 1986

Mr. George T.H. Cooper
P.O. Box 730
1673 Bedford Row
Halifax, N.S. B3J 2V1

Re: ALLAN MEMORIAL INSTITUTE
DR. D. EWEN CAMERON

Dear Mr. Cooper:

I am writing to provide my views on those aspects of Dr. Cameron's controversial treatment methods at the Allan Memorial Institute (1953-1964) about which you consulted me. I will begin by outlining the basis on which I have formed my opinions and then I will address the points we discussed at our meeting in Toronto on October 31, 1985 and that are set out in your letter to me of November 26th.

Information Base

I have reached my conclusions on the basis of the following information:

1. Review of some of the papers published by Dr. Cameron and his colleagues in the professional literature;

2. Review of other contemporary professional publications in the same journals and in the same years, namely,

   a) American Journal of Psychiatry, Vol 112(1956)

   b) Canadian Psychiatric Association Journal Vols 6 (1961) and 10 (1965)

   c) Comprehensive Psychiatry, Vol 3 (1962)

   d) Journal of Mental Science, Vol 106 (1960)

Cont'd.../2

Medical Sciences Building, Toronto, Ontario, M5S 1A8

3. Review of unpublished personal memoirs of Dr. R.A. Cleghorn, Dr. Cameron's successor as Professor of Psychiatry at McGill University and Director of the Allan Memorial Institute;

4. Personal knowledge. As a medical student at McGill in the 1950's and an intern at the Royal Victoria Hospital I had some contact with Dr. Cameron and his work. This contact became much more extensive in 1961 when, as a resident in Internal Medicine, I worked on Dr. Cameron's service at the AMI, both with his patients who were receiving the controversial treatments (depatterning, psychic driving, hallucinogenic drugs, etc) and those receiving the more convential treatments of the day. Subsequently, since 1963, I have been a psychiatrist and have come into contact with many of Dr Cameron's colleagues, both admirers and critics, and have formed opinions about the place of his work in the development of psychiatry. I was a staff psychiatrist at the Allan Memorial Institute from 1965 through 1970 and, subsequently, have held senior clinical and academic positions in this discipline: Psychiatrist-in-Chief, Ottawa Civic Hospital and professorial staff, University of Ottawa (1971-74); Director and Psychiatrist-in-Chief, Clarke Institute of Psychiatry and Professor and Chairman, Department of Psychiatry, University of Toronto (1974-80). I am a member of the Canadian and American Psychiatric Associations, a Fellow of the American College of Psychiatrists and a member of a number of other psychiatric and psychoanalytic societies. Through these activities I have an informed, albeit personal, perspective on Dr. Cameron's work during the period in question.

However, I must point out that I have not had an opportunity to examine any of Dr. Cameron's applications for research funds or research protocols, and I have not seen any of his former patients nor reviewed their files since leaving the Allan Memorial Institute.

Cont'd.../3

I did not know Dr. Cameron socially, my contact being restricted to the professional relationship I had as a resident on his service for three months in 1961, during which time I saw him virtually daily, and occasionally thereafter when, as the duty resident, I might be called over from the Royal Victoria Hospital to assist in the medical aspects of the care of one of his patients.

D. Ewen Cameron's treatments

> "Nothing that has thus far transpired is likely to be more serious than for humanity to learn how to control the development of personality and how to master the forces of group dynamics before we have developed a value system capable of dealing with such a situation...As psychiatrists, we are physicians having an immemorial responsibility for the well being of our patients...Our knowledge of human nature, our techniques for the exploration of motive and memory, if torn from their framework of professional integrity and proper concern for the individual and for the community may, their use perverted, become the most deadly weapons yet directed against the dignity and serenity of human life"
>
> D.E. Cameron,
> May, 1953

It is ironic that these words, part of his address as outgoing president of the American Psychiatric Association, were spoken by the man who is now villified in some newspapers and magazines and on television as an unscrupulous scientist, an agent or dupe of the CIA, who conducted "sordid" experiments on behalf of this agency using unwitting Canadian psychiatric patients as human guinea pigs.

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There can be no doubt that, in retrospect, Cameron's more extreme experimental treatments were misguided and ineffective, certainly in the long run. Controversial even at the time, they may have produced short term benefits for some patients but it is also quite possible that they resulted in emotional and, perhaps, organic damage to many others. I do not believe that any of these treatments has survived anywhere in the world. The treatments in question are primarily the following:

1. "Depatterning", a complex series of procedures designed to eradicate faulty patterns of thought and behaviour by producing a more primitive mode of functioning by the brain and mind of intractably ill psychiatric patients so that they could subsequently be "repatterned", or reprogramed, to a healthier more adaptive mode. Depatterning involved the use of multiple electroshocks repeated frequently and for a considerable length of time, usually following a period of prolonged, drug induced sleep.

2. Powerful psychoactive disinhibiting drugs, including the injection of shortacting barbiturates mixed with amphetamines or hallucinogenic drugs (eg LSD, psilocybin) to attempt short cuts to psychodynamic understanding that would guide the content of "psychic driving" and advice re life changes for the patient.

3. "Psychic Driving", recorded messages with specifically tailored content played to the patient many thousand times by a variety of electronic means for the purpose of changing the patient's thought patterns and attitudes.

4. Prolongued sensory deprivation, in which an attempt was made to restrict as much as possible all external neurosensory input so as to assist in the breaking of undesirable thoughts and behaviours.

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None of these procedures was actually discovered by Dr. Cameron but their combination, and especially depatterning and psychic driving, were more extensively developed and used at the AMI than anywhere else in the world. Dr. Cameron and some of his colleagues reported widely on their use in presentations to the public and to scientific audiences and in extensive writings.

Were these responsible treatments or not?

It is not useful, in my view, to evaluate the use of procedures in the late 1940's, the 1950's and the early 1960's by the application of today's standards. Certainly, none of these treatments could be used today in a major teaching hospital and they would not be supported by a responsible granting agency. The faulty theoretical basis for their use, the adverse risk-to-benefit ratio, the poor evaluation methodology and the absence of provision for informed consent are among the factors that would militate against their use.

The pertinent question is "were these procedures responsible from a scientific and medical point of view in the context of the times?" This is not easy to answer. There was no shortage of contemporary critics of the work. Despite Dr. Cameron's immense personal prestige - he was generally regarded as the most important psychiatrist in Canada - he was not successful in having these treatments widely adopted, in a profession that was rather prone to the premature adoption of promising treatments. There were many skeptics, even in his department at McGill. Many psychiatrists in Canada and abroad considered the treatment methods extreme, overly risky and/or without proper theoretical foundation. Nevertheless, it is clear that Dr. Cameron continued to be honoured throughout the English speaking world; he was asked to deliver the prestigious Maudsley Lecture in London.

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He was elected President of the Canadian, American and World Psychiatric Associations. He attracted a large number of postgraduate students and visiting scholars from around the world, sent to him because of the respect in which he and his training program were held. Therefore, despite the controversial nature of his treatment techniques, which were widely reported to both the professional and the general public, Dr. Cameron continued to receive acclaim as a leader in Canadian and world psychiatry. Clearly, this could not have happened if his peers considered his work irresponsible.

It must be remembered also that the treatments were carried out openly in one of Canada's leading teaching hospitals with the full knowledge of his psychiatric, psychological and other medical colleagues. In addition to receiving funding from the Society for the Investigation of Human Ecology, now known to have been a conduit for CIA funds, his work was supported by responsible national granting agencies. It should also be stressed that the Society in question was associated with Cornell University which was and remains a first-rate American institution of higher learning.

When Dr. Cameron's papers are compared with other reports of therapeutic trials in the contemporary psychiatric literature, it is apparent that his work was no less rigorous than that of most of his peers. By comparison with the standards expected of therapeutic trials today, the papers tend to be more descriptive and less analytical, the selection of subjects was not always rigorous or well described, the indications for the treatments were not clearly set out, standardized diagnostic procedures were less developed, outcome criteria were not well specified, statistical analysis was much less sophisticated and follow-up information about the long term effects was either absent or inadequate. However, by the standards of the time, Dr. Cameron's work was certainly acceptable.

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Experiment vs. treatment

Over the past several decades policies have evolved for protecting the public against the premature application of new drugs and other therapeutic procedures. In hospitals, and particularly in university teaching hospitals, there are now guidelines and often strict regulations that govern the introduction of new treatments. The institutions (hospital and university) and professional peers share responsibility with the attending physician for the use of controversial treatments in particular patients. A recognizable line is drawn between the application of the range of standard treatments and the conduct of experimental trials which require specific protocols and careful evaluation. During the 1950's and early 1960's the line was much less clear. When faced with a sick patient, and especially one who had failed to respond to standard treatment, it was much more common for physicians, on their own authority, to use less well established treatments if they thought they were likely to be of help. A high proportion of patients were referred to Dr. Cameron by other physicians, including other psychiatrists, because their illnesses had not responded to conventioal treatment administered elsewhere. Many of them, both psychotic and severely psychoneurotic patients, were severely disabled, suffering considerably and at risk for suicide. At a time when other drastic therapeutic measures, now discarded, were still part of conventional therapy (e.g. insulin coma treatment, leucotomy and lobotomy), Dr. Cameron's methods were not regarded as being so extreme as they appear in retrospect thirty years later.

Therefore, although with hindsight one would now regard Dr. Cameron's treatments as experimental and requiring restricted use and the most rigorous scientific evaluation before general application, at the time they were regarded as rather heroic, if extreme, attempts to help patients who were suffering and were not receiving benefits from conventional treatments. It is my own personal view that a major motivation for Dr. Cameron (in addition to the advancement of his own career) was his wish to help his patients.

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Medical Ethics, 1950's vs 1980's

Fundamental ethical principles governing the practice of medicine have not changed during the past thirty years, having been established over the centuries since the teachings of Hippocrates, Maimonides and many others. The physician in Cameron's time, as now, was ethically bound to place the welfare of his patients above all considerations including personal advantage, research objectives and the purposes of agencies supporting the research. Further, the doctrine of primum non nocere (above all do no harm to the patient) was taught to medical students then as it is now. It may indeed be argued that Dr. Cameron's treatments transgressed both of these well accepted ethical precepts.

The problem lies in the complexity of the issues and how one assesses the relevant factors. Dr. Cameron may well have been personally persuaded that his innovative though dangerous work, which brought him considerable acclaim at the time and notoriety later, was in the best interests of his patients. That is, his assessment of the benefit-risk equation may well have been that the application of unproven and risky treatments was justified because conventional therapy had little to offer in these cases. This is a stance often taken today with patients whose lives are in jeopardy or who are suffering intractable pain; they are offered such treatments as heart or liver transplants, highly toxic anti-cancer medication, surgical interruption of pain tracts in the spinal cord, and so on. Whether, in fact, Dr. Cameron genuinely believed that he was acting in the best interests of his patients is now very hard to determine. Opinions differ on this point, though most of those who came into personal contact with him believe that he did, and I share this view.

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Nevertheless, it is a valid criticism of this position that, as he became more and more convinced that his methods constituted valuable therapeutic innovations, his criteria for the selection of patients for these controversial treatments seemed to broaden. By the time I became personally involved wit his patients (1961) it was my own view that many of the schizophrenic patients who were "depatterned" had not had adequate trials of appropriate phenothiazine medications that were then available and many of the psychoneurotic patients who received hallucinogenic drugs and psychic driving could have been helped by conventional psychotherapy. Of course, at the time I was very junior in status and quite inexperienced in psychiatry; nevertheless, even in hindsight after more than twenty years of practicing and teaching psychiatry I still hold this view.

The major change that has occurred since the 1950s with respect to medical ethics has been the operational formalization of their application in hospitals and in research involving human subjects. University and hospital ethics committees are now broadly representative, usually including not only physicians and other health professionals but also lawyers, members of the clergy and members of the general community. These committees now need to be persuaded that risky, unproven treatments are more likely to help them to hurt the patients, and that all possible less dangerous alternatives have been tried first. Ethics committees today will not approve research involving human subjects that is not scientifically valid, that is not likely to benefit the subjects directly or mankind generally. This was quite different in the 1950s when much less care was taken to ensure that therapeutic innovations and research involving humans met these criteria. Much more was left to the judgement of the attending physician.

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A related change has been the requirement for informed consent on the part of patients/subjects or, if they are incapable of giving this consent, on the part of appropriate next of kin or guardians. Hospital regulations governing both treatment and research now call for, first, explicit and detailed communication to patients or families of the procedures to be carried out, the rationale for their use, the potential risks and the alternatives available and, then, their informed written consent. Indeed, many research granting agencies require proof of this and many scientific journals call for explicit confirmation of informed consent before considering applications for research support or publication of manuscripts.

During the 1950s procedures were much less stringent. The patient's general consent to treatment, given on admission to hospital, was often considered adequate to permit a wide range of therapeutic procedures. Consent to participate in research, including therapeutic trials, was also not nearly so rigorous as it is today. It is not surprising, therefore, that many persons treated by Dr. Cameron now claim that they were not fully informed about the treatments they received. The therpeutic climate of the time was still characterized by the assumption by patients of a benign paternalism on the part of the attending physician. This assumption would be all the greater when the physician was someone of Dr. Cameron's high reputation and impressive bearing.

What responsibility did granting agencies have?

This is a difficult question for me to address with specific reference to Dr. Cameron's work. As I pointed out above, I have not seen any of his research applications or protocols and I am not privy to correspondence with granting agencies or to their files. Therefore I cannot do more than make some general comments on this point.

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Granting agencies then and now have relied on three types of safeguards to ensure that scientific, medical and ethical standards are high: the adequacy of their review procedures, the dedication and skill of expert peer reviewers, and the integrity of the applicants for research support. Granting agencies must ensure that they require appropriate information about the research proposed (including the rationale, the research methods, and the methods of data analysis); that the proposal is reviewed by experts in the field from the points of view of relevance, importance and scientific validity; and that grantees have the appropriate professional and scientific qualifications and reputation. The only difference today is that these criteria are better operationalized and that informed consent of subjects is now specifically required.

Of course, granting agencies that rely on fallible people to establish procedures and conduct peer review of the proposals received make mistakes. They sometimes support research that is scientifically unworthy, or of low relevance to society or ethically flawed. Furthermore, once the agencies grant financial support they must rely on the grantee to conduct the research as it was proposed and approved and according to high scientific and ethical standards.

Obviously once a granting agency becomes aware that the research is seriously deficient in any of these areas it will not likely fund further applications. Grantees who receive renewals of research support are considered by the agencies as scientifically and ethically worthy.

A further safeguard is in the subsequent publication of the work. The major medical and scientific journals all have careful peer review procedures for selecting manuscripts for publication. Granting agencies usually will not renew grants or award new ones to investigators who are not able to get their work published in peer-reviewed journals. That is, a second group of peers, often in another country, review the work for scientific merit, relevance and ethical standards.

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The fact that two groups of experts, the granting agency's professional advisory or review team and the journal's peer reviewers, continued to approve Dr. Cameron's applications and manuscripts indicates that his professional peers were satisfied that the scientific, medical and ethical standards of the day were met.

Summary

In summary, it is my opinion that:

1. Dr. Cameron's controversial treatments (depatterning, psychic driving, prolonged sleep therapy, prolonged sensory deprivation and use of hallucinogenic drugs) were ineffective and, in retrospect, inadvisable.

2. They were, however, medically acceptable in the context of the times.

3. They were also, in that context, generally regarded as extreme attempts to help patients who were not benefitting from more conventional treatments; that is, they were not generally considered irresponsible.

4. Whether Dr. Cameron's treatments transgressed medical ethical standards is arguable. He probably was personally persuaded that his treatments were in the best interests of the patients in that the possible benefits and lack of effective alternative treatments outweighed the risks. This is clearly a matter of debate.

5. The lack of insufficiently informed consent for the procedures on the part of some of Dr. Cameron's patients was not unusual in the context of the practices of the times.

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6. Research granting agencies, then as now, depend heavily on the judgement of peers and the integrity of the grantee for the maintenance of high scientific, medical and ethical standards. In addition to the controversial support by the Society for the Investigation of Human Ecology, responsible national granting agencies evaluated Dr. Cameron's proposals and responsible psychiatric journals published his manuscripts after they were subjected to peer review.

   Dr. Cameron's professional peers were well aware of the treatments he carried out and yet they bestowed upon him acclaim as well as criticism, honours and high professional offices.

I hope that my opinions will be useful in the preparation of your report to the Honourable John Crosbie, Minister of Justice of Canada.

Yours sincerely,

Fred Lowy

Frederick H. Lowy, M.D.
Dean

FHL/ses

CURRICULUM VITAE

Frederick H. Lowy

Personal

Born: January 1, 1933, Grosspetersdorf, Austria
Canadian Citizenship: December 2, 1950
Married: Wife - Mary Kay O'Neil-Lowy, PhD; 4 children
Address: 338 Inglewood Drive
Toronto Ontario M4T 1J6
Telephone: 482-4063 (home)
978-6584 (office)

Present Positions

1980- Dean, Faculty of Medicine, University of Toronto
1974- Professor, Department of Psychiatry, University of Toronto
1985- Vice-President, Association of Canadian Medical Colleges
1985- Chairman, Council of Ontario Faculties of Medicine

Other Appointments

1973- Consultant, Ontario Cancer Institute
1975- Consultant, Addiction Research Foundation
1975- Consultant, Mount Sinai Hospital
1975- Consultant, North York General Hospital
1975- Consultant, Princess Margaret Hospital
1975- Consultant, Sunnybrook Medical Centre
1975- Consultant, St. Michael's Hospital
1975- Consultant, Toronto General Hospital
1975- Consultant, Toronto Western Hospital
1975- Consultant, Women's College Hospital
1975- Consultant, Wellesley Hospital
1980- Consultant, Clarke Institute of Psychiatry
1981- Member, Board of Trustees, Sunnybrook Medical Centre
1981- Member, Board of Trustees, Ontario Cancer Institute
1984- Member, Board of Trustees, Mount Sinai Hospital
1984- Member, Board of Trustees, Toronto General Hospital
1984- Member, Board of Trustees, Toronto Western Hospital
1984- Member, Board of Trustees, Eye Research Institute of Ontario

Education

1. Elementary schools in Lisbon, Philadelphia, Montreal.
2. Baron Byng High School, Montreal, 1946-50
3. Machon Lemadrichei Chutz Laaretz
   (Institute for Youth Leaders from Abroad), Jerusalem,
   Israel, 1952-53
4. McGill University, Faculty of Arts 1950-52, 1953-55
5. McGill University, Faculty of Medicine, 1955-59

Academic and Professional Qualifications

1955 B.A. (Psychology), McGill University, Montreal
1959 M.D., C.M., McGill University
1959 Licensee, Medical Council of Canada
1960 Licensee, National Board of Medical Examiners, USA
1965 Certificant in Psychiatry, Royal College of Physicians and Surgeons of Canada - CRCP (C)
1967 Diplomate, American Board of Psychiatry and Neurology
1970 Graduate, Canadian Institute of Psychoanalysis
1971 Fellow, Royal College of Physicians and Surgeons - FRCP (C)

Professional Post Graduate Education

1959-60 Rotating internship, Royal Victoria Hospital, Montreal
1960-61 Junior Assistant Resident in Medicine, Royal Victoria Hospital, Montreal
1962-64 Resident in Psychiatry, University of Cincinnati College of Medicine and related hospitals, Cincinnati, Ohio
1964-65 Chief Resident in Psychiatry, Cincinnati General Hospital and Veteran's Administration Hospital, Cincinnati, Ohio
1966-70 Training in Psychoanalysis, Canadian Institute of Psychoanalysis, Montreal

Previous Appointments - University

1965-66 Demonstrator, Department of Psychiatry, McGill University
1966-68 Lecturer, Department of Psychiatry, McGill University
1968-70 Assistant Professor of Psychiatry, McGill University
1971-72 Associate Professor of Psychiatry, University of Ottawa
1973-74 Professor, Department of Psychiatry, University of Ottawa
1974-80 Professor and Chairman, Department of Psychiatry, University of Toronto

Previous Appointments - Hospital

1965-67 Clinical Assistant in Psychiatry, Royal Victoria Hospital, Allan Memorial Institute, Montreal
1967-69 Assistant Psychiatrist, Royal Victoria Hospital, Montreal
1969-70 Associate Psychiatrist, Royal Victoria Hospital, Montreal
1971-74 Psychiatrist-in-Chief, Ottawa Civic Hospital
1971-80 Director and Psychiatrist-in-Chief, Clarke Institute of Psychiatry, Toronto

Professional Editorial Posts

1971-72 Associate Editor - Canadian Psychiatric Association Journal
1973-76 Editor - Canadian Psychiatric Association Journal (now Canadian Journal of Psychiatry)
1974-76 Editorial Board - Canada's Mental Health
1976- Editor Emeritus, Canadian Journal of Psychiatry
1977- Editorial Board, Montage
1978- Corresponding Editor - The International Journal of Psychiatry in Medicine
1978- Editorial Board - Psychiatry, Medicine and Primary Care
1983- Editorial Board - Social Psychiatry

Research Positions

Director, Sleep and Dream Laboratory, Allan Memorial Institute, Montreal. from its organization in May 1967, until December 1970.
Head, Psychotherapy Research Section - Clarke Institute of Psychiatry, from its organziation in 1978 to 1980.

Major Organizational and Administrative Appointments

Premedical

President, Student's Council, Baron Byng High School, Montreal 1949
Managing Editor (1953) and Editor (1954) McGill Daily
Student's Executive Council, McGill University (1953-54 and 1958-59)

Medical (Undergraduate)

Editor, CAMSI Journal (Canadian Association of Medical Students and Interns) 1958-59
President, McGill Medical Class of '59'.

Medical (Post graduation)

Member, Development Committee, Royal Victoria Hospital, Montreal, 1968-70.
Secretary, Consortium of Faculty, Department of Psychiatry, McGill University 1969-70.
Program Chairman, 7th Annual Convention, Quebec Psychiatric Association 1971
Member, Medical Advisory Committee, Ottawa Civic Hospital, 1971-74.
Secretary, Medical Advisory Committee, Ottawa Civic Hospital, 1973-74.
Member, Executive Committee, Ottawa Civic Hospital, 1973-74.
Chairman, Credentials Committee, Ottawa Civic Hospital, 1973-74.
Member, Task Force on Demonstration Model Grants, Health Research Committee, Ontario Council of Health, 1972-74
Member, Advisory Board, Ontario Mental Health Foundation, 1972-78
Member, Search Committee for Chairman of Psychiatry, University of Ottawa, 1973
Member, Examining Board (Psychiatry), Royal College of Physicians and Surgeons of Canada, 1972-77. (Chairman - 1975-77)
Member, Executive Committee and Dean's Senior Advisory Committee, Faculty of Medicine, University of Toronto (1976-78)
Member, Program Committee, American Psychiatric Association (1976-80)
Nucleus Member, Speciality Committee, Royal College of Physicians and Surgeons of Canada (1977-81)
Reviewer, Department of Psychiatry, University of British Columbia, 1979
Reviewer, (for Royal College), University of Montreal, 1980
Reviewer, Department of Psychiatry, McMaster University, 1983
Reviewer, Department of Psychiatry, Queen's University, 1984
Consultant, Sultan Qaboos University, Sultanate of Oman, 1984
Member, Council of Ontario Faculties of Medicine (1980-)
Vice-Chairman, Council of Ontario Faculties of Medicine (1983-)
Member, Senior Advisory Group, University of Toronto (1982-)
Member, Executive, Association of Canadian Medical Colleges (1982-)
Member, Board of Regents, American College of Psychoanalysts (1983-85)

Societies

Alpha Omega Alpha
Canadian Medical Association
Canadian Psychiatric Association
Ontario Psychiatric Association
Canadian Psychoanalytic Society
International Psycho-Analytical Association
American Psychiatric Association (Fellow)
American College of Psychiatrists (Fellow)
American College of Psychoanalysts (Fellow)
American Psychosomatic Society
Association for Psychophysiological Study of Sleep and Dreams
American Association for the Advancement of Science
International College of Psycosomatic Medicine (Fellow)
Academy of Medicine, Toronto
Society for Psychotherapy Research

Honours

Dr. F.R. Eccles Memorial Lecturer, University of Western Ontario February 1975
Fellow, American Psychiatric Association, 1975
Fellow, American College of Psychiatry, 1979
Fellow, American College of Psychoanalysts, 1979
Fellow, International College of Psychosomatic Medicine, 1979
Member, Benjamin Rush Society (USA), 1981
Award of Merit, McGill Society of Toronto, 1984

Major Presentations at Scientific Meetings and Invited Lectures

1964: - (with H.W. Wylie, Jr. and P. Lazaroff): The Death of a Patient in a Psychotherapy Group. Annual meeting, American Group Psychotherapy Association, New York, January 1964.

1967: - (with Z.J. Lipowski): The Aims and Techniques of Psychiatric Consultation in Medicine. Annual meeting, Canadian Psychiatric Association, Quebec, June 15, 1967.

1968: - (with R.M. Wintrob and B.K. Dhindsa): Man and his Anxiety. Annual meeting, Quebec Psychiatric Association, Montreal, May 3, 1968.

1969: - (with R.A.H. Kinch, B.K. Lewis, R.N. MacDonald and C.R. Scriver): The Teaching of Behaviour, Growth and Development in the Preclinical Years of Medicine. Annual meeting, Quebec Psychiatric Association, Quebec, May 22, 1969

1969: - (with R.M. Wintrob, B. Borwick, G. Garmaise and H.O. King): A Follow-up study of Emergency Psychiatric Patients and Their Families: Methodological Problems. Annual meeting, Canadian Psychiatric Association, Toronto, June 11, 1969.

1970: - (with T.K. Kolivakis): Autocastration by a Male Transsexual: Case Report and Some Notes on the Management of Transsexualism. Annual meeting, Canadian Psychiatric Association, Winnipeg June 19, 1970.

1970: - Is Abreaction Always Desirable? The Misuse of an Early Psychoanalystic Concept. Group without a Name Psychiatric Research Society, Montreal, October 16, 1970.

- Tetrahydrocannabinol and Sleep. Joint meeting, Montreal Physiological Society and Medicinal Chemists Division of Chemical Institute of Canada, Pointe Claire, Ottawa, January 23, 1971

- (with R. Broughton and J. St. Laurent): Significance for Psychiatrists of Current Sleep and Dream Research. Annual meeting, Quebec Psychiatric Association, Sherbrooke, Quebec April 22, 1971

- (with B. Humphrey, P. Beck, D.J. Lewis, A. Schwartzman and L. Stephens): Response to a Medicare Strike in a Psychiatric Hospital. Annual meeting, Canadian Psychiatric Association, Halifax, June 12, 1971.

1972: - Patients who Somatize, Annual meeting, Ontario Psychiatric Association, Toronto, January 29, 1972

- Psychoanalytic Dream Theory in the Light of Recent Dream Research, Ottawa Psychoanalytic Group, March 27, 1972

- Research on Dreams - Some Current Issues. Ottawa Academy of Medicine, Section on Psychiatry, April 4, 1972

- The Psychology of Sleep - Some Current Issues. First Canadian International Symposium on Sleep. McGill University, Montreal, April 14, 1972.

- The Psychiatrist-Physician Relationship in General Hospitals: Present and Future. Annual meeting, Ontario Medical Association. Toronto, May 11, 1972.

- Clinical Dream Interpretation in the Light of Modern Sleep Research. Ontario Psychiatric Association, Huntsville, September 30, 1972.

1973: - (with R. Melzack, R. Nelson and E. Peterson): Current Concepts of Pain Mechanisms. Ottawa Neurosciences Society, November 15, 1973

1974: - The Chronic Somatizer - Treatment Strategies. Maurice Levine Society, University of Cincinnati, Cincinnati, Ohio, October 12, 1974

1975: - Strategies in the Management of Chronic Pain. The Dr. F. R. Eccles Memorial Lecture, University of Western Ontario, London, February 5, 1975

- Psychiatric Aspects of Pain. Invited Lecture University of Connecticut Health Centre, Department of Psychiatry, April 16, 1975

1976: - The Impact of Community Psychiatry on Psychiatric Teaching. Association of Psychiatric Outpatient Centers of America, Montreal, June 4, 1976

1977: - Issues in the Treatability of the Neuroses. Invited address, Ontario Psychological Association, February 11, 1977

1978: - (with E.F Guirguis, H.B. Durost, J.T.D. Glaister, J.J. Jeffries and G. Warme): The Use of Mechanical Restraints: Current Status. Ontario Psychiatric Association, January 26, 1978

- A Reconsideration of Agoraphobia. Canadian Psychoanalytic Society, Toronto, March 28, 1978

- Seldom Discussed Issues in Psychotherapy. Annual Meeting Canadian Psychiatric Association, Halifax, October 18, 1978

1979: - Some Remarks on Epidemic Hysteria. Invited Lecture, Cincinnati Psychiatric Society, Cincinnati, Ohio, May 2, 1979

- (with S. Greben, R. Smith, P. Steinhauer and G. Voineskos): The Psychiatric Training of Medical Students: Current Issues and Future Directions. Annual Meeting, Canadian Psychiatric Association, September 26, 1979

1980: - Psychotherapy for the 1980's. Invited Address to the Annual Meeting, Association of Psychiatric Outpatient Centers of America, June 1980

1981: - (with S. Hosenbocus, P. Leichner, H. Prosen and H. Kravits): The Oral Certification Examination in Psychiatry. Annual Meeting, Canadian Psychiatric Association, Winnipeg. September 23, 1981

- (with F.G. Sommers, J.D. Griffin, and R.O. Jones): Medical and Psychological Effects of Nuclear War and the Nuclear Arms Race. Annual Meeting, Canadian Psychiatric Association, Winnipeg, September 24, 1981

- (with J.M. Cleghorn and V.M. Rakoff): The Role of Psychoanalysis in Contemporary Psychiatric Training. Annual Meeting, Canadian Psychiatric Association, Winnipeg, September 25, 1981

1982: - The Use and Abuse of Drugs in the Treatment of Anxiety. Saudi Arabian Annual Medical Meeting, King Faisal University, Dammam, Saudi Arabia.

- (with J.M. Cleghorn): Psychodynamics in the Training of Psychiatric Residents. Annual Meeting, American College of Psychoanalysts, May 15, 1982

- Psychotherapy: A Personal View. Academy of Medicine, Toronto, December 9, 1982

1983: - Psychotherapy and the Education of Psychiatrists. Invited Lecture, Montreal General Hospital and McGill University Department of Psychiatry. Montreal, April 15, 1983

- The Mission of the Physician: The Relationship of Science to Human Values. The Edward Brooks Memorial Lecture, St. Michael's Hospital, Toronto, June 23, 1983

- The Status of Psychotherapy Today. Invited Lecture, Department of Psychiatry, University of Manitoba, Winnipeg, October 4, 1983

1984: The Impaired Physician: The Role of the Medical School. Annual Meeting, The Royal College of Physicians & Surgeons, Montreal, September 12, 1984

External Teaching and Lecturing since coming to Toronto

1974	University of Ottawa University of Cincinnati
1975	University of Western Ontario University of Connecticut Dalhousie University McGill University
1976	McGill University St. Vincent's Hospital National University of Ireland, Dublin Memorial University of Newfoundland
1977	University of British Columbia
1978	University of Ottawa
1979	University of Cincinnati
1980	McMaster University
1982	King Faisal University, Dammam, Saudi Arabia
1983	McGill University University of Manitoba Beijing Hospital, Beijing China Sichuan Medical College, Chengdu China
1984	McGill University

Publications

A. In Books

1972: Lowy, F.H. : The Psychology of Sleep - Some Current Issues. In McClure, D.J. (Ed) First Canadian International Symposium on Sleep: Proceedings April, 1972. Roche Scientific Service, Hoffman - LaRoche, Vaudreuil, Quebec, 1972

1976: Lowy, F.H.: Delirium: Method of Treatment. In Current Therapy 837-839, Ed by H.G. Conn, Philadelpha: W.B. Saunders & Co. 1976

1977: Lowy, F.H.: Management of a Persistent Somatizer. Psychosomatic Medicine Z.J. Lipowski, D.R. Lipsitt, P.C. Whybrow (Eds) New York: Oxford University Press, 1977

1978: Lowy, F.H.: The Impact of Community Psychiatry on Psychiatric Teaching. In J.M. Divic and M. Dinoff (eds) Community Psychiatry - Review and Preview University of Alabama Press

1978: Lowy, F.H.: Case Discussion, in H. Davanloo (Ed) Basic Principles and Techniques in Short-Term Dynamic Psychotherapy Jamaica, N.Y. : Spectrum Publications, 1978

1979: Lowy, F.H.: The Pendulum Swings from Society to the Individual, in D.N. Weisstub (Ed) Law and Psychiatry II, New York: Pergamon, 1979

1979: Lowy, F.H.: Full Cycle in Child Mental Health. In S.J. Shamsie (ed) New Directions in Children's Mental Health Jamaica N.Y.: Spectrum Publications, 1979

1980: Lowy, F.H.: The Use of Drugs and Other Treatments in Depression in F.J. Ayd (Ed) Clinical Depressions: Diagnostic and Therapeutic Challenges, 1980

1980: Greben, S.E., Pos, R., Rakoff, V., Bonkalo, A., Lowy, F.H., and Voineskos, G. (Eds) A Method of Psychiatry Philadelphia: Lea & Febiger, 1980 375 pages.

1980: Voineskos, G. and Lowy, F.H.: Psychiatric Emergencies. In S.E. Greben et al. A Method of Psychiatry pp 267-274

1980: Voineskos G. and Lowy, F.H.: Suicide and Attempted Suicide. In S.E. Greben et al. A Method of Psychiatry pp 275-280

1980: Lowy, F.H.: Psychiatric Treatment: General. In S.E. Greben et al. A Method of Psychiatry pp 281-288

1980: Lowy, F.H. and Pos, R.: Psychotherapy and Behavior Therapy, In S.E. Greben et al. A Method of Psychiatry, pp 289-296

1980: Lowy, F.H.: Referral to the Psychiatrist. In S.E. Greben et al. A Method of Psychiatry, pp 339-344

1984: Lowy, F.H.: Treatment of the Anxiety Disorders, Somatoform Disorders, Dissociative Disorders and Personality Disorders. In Endler, N.S. and Hunt H. McV. Personality and Behaviour Disorders, 2nd Edition New York: John Wiley & Sons, 1984

1984: Lowy, F.H.: Anorexia Nervosa: a paradigm for mind-body interdependence? In Darby, P.L., Garfinkel, P.E., Garner, D.M., and Coscina, D.V. (Eds) Anorexia Nervosa: Recent Developments in Research, New York: Allan R. Liss 1984.

1985: Voineskos, G. and Lowy, F.H. : Psychiatric Emergencies in Greben, S.E., Rakoff, V.M. and Voineskos, G. A Method of Psychiatry, 2nd Edition, Philadelphia: Lea & Febiger, 1985

1985: Voineskos, G. and Lowy, F.H. Suicide and Attempted Suicide, in Greben, S.E., Rakoff, V.M. and Voineskos, G. A Method of Psychiatry, 2nd Edition, Philadelphia: Lea & Febiger, 1985.

1985: Lowy, F.H. : Referral to the Psychiatrist. In Greben, S.E., Rakoff, V.M. and Voineskos,G. A Method of Psychiatry, 2nd Edition, Philadelphia: Lea & Febiger, 1985.

B. In Refereed Journals

1957: Lambert, W.E. and Lowy, F.H.: Effects of the Presence and Discussion of Others on Expressed Attitudes. Canadian Psychol. II: 151-163, 1957

1964: Wylie, H.W. Jr., Lazoroff, P. and Lowy, F.H.: A Dying Patient in a Psychotherapy Group. Internat. J. Group Psychother. 14: 482-490, 1964

1965: Lowy, F.H.: The Neuropsychiatric Complications of Viral Hepatitis, Canad. Med. Assoc J. 92: 237-239, 1965.

1969: Lowy, F.H., Wintrob, R.M. and Dhindsa, B.K.: Psychiatric Emergencies at Expo '67, Canada. Psychiat. Assoc. J. 14: 47-52, 1969

1969: Lowy, F.H., Wintrob, R.M. and Dhindsa, B.K.: Man and his Anxiety. Laval Medical 40: 966-970, 1969

1970: Lowy, F.H., Recent Sleep and Dream Research: Clinical Implications Canadian Medical Assoc. J. 102: 1069-1077, 1970

1970: Lowy, F.H.: Sleep Research and Scientific Change. Canadian Med. Assoc. J. 102: 1105-1106, 1970 (unsigned editorial)

1970: Kinch, R.A.H., Lewis, D.J., Lowy, F.H., MacDonald, R.N. and Scriver, M.D.: The Teaching of Behaviour, Growth and Development in the Preclinical Years of Medicine. Laval Medical 41: 495-499, 1970. Also published in Milbank Memorial Fund Quarterly 49: 228-243 (April) 1970

1970: Lowy, F.H.: The Abuse of Abreaction: An Unhappy Legacy of Freud's Cathartic Method. Canad. Psychiat. Assoc J. 15: 557-567, 1970

1970: Lewis, D.J. and Lowy, F.H.: The Well-Tempered Psychiatrist: Robert Allan Cleghorn, M.D. Canad. Psychiat. Assoc. J. 15: 513-514, 1970

1971: Lowy, F.H., Wintrob, R.M., Borwick, B., Garmaise, G. and King, H.O.: A Follow-up Study of Emergency Psychiatric Patients and their Families: Methodological Problems. Comprehensive Psychiat. 12: 36-47, 1971

1971: Lowy, F.H.: Lessons from Emergencies: Canad. Psychiat. Assoc. J. 16: 103-104, 1971

1971: Lowy, F.H., Cleghorn, J.M. and McClure, D.J.: Sleep Patterns in Depression. J. Nerv. Ment. Dis. 153: 10-26, 1971

1971: Lowy, F.H.: New Directions in Dream Psychology Research Canad. Psychiat. Assoc. J. 16: 399-406, 1971

1971: Lowy, F.H. and Kolivakis, T.K.: Autocastration by a Male Transsexual. Canadian Psychiat. Assoc. J. 16: 399-406, 1971

1971: Cleghorn, R.A., Cleghorn, J.M. and Lowy F.H.: Contributions of Behavioural Sciences to Health Care. Milbank Memorial Fund Quart. 49: 158-174, 1971

1973: Lowy, F.H., Engelsmann, F. and Lipowski, Z.J.: Study of Cognitive Functioning in a Medical Population. Comprehensive Psychiatry, 14: 331-337, 1973

1973: Lowy, F.H.: Psychiatric Research. Canad. Psychiat. Assoc. J. 18: 91-92, 1973

1974: Lowy, F.H.: Renaissance of Psychiatric Diagnosis. Canad. Psychiat. Assoc. J. 19: 233-254, 1974

1975: Lowy, F.H.: Editorial: Clarence B. Farrar, 1874-1970, and the History of Psychiatry in Canada. Canad. Psychiat. Assoc. J. 20: 1-2, 1975

1975: Lowy, F.H.: Management of the Persistent Somatizer. International Journal of Psychiatry in Medicine 6: 227-239, 1975

1976: Lowy, F.H.: The State of the Specialty. Canad. Psychiat. Assoc. J. 21: 504-505, 1976

1979: Lowy, F.H. and Jones R.O.: The Canadian Certification Examination in Psychiatry I - Historical Notes. Canad. J. Psychiatry 24: (4), 1979

1979: Lowy, F.H. and Dongier, M.: The Canadian Certification Examination in Psychiatry II - Who Passes and Who Fails. Canad. J. Psychiatry 24: (4) 1979

1979: Lowy, F.H. and Prosen, H.: The Canadian Certification in Psychiatry III - Towards Better Certification Techniques Canad. J. Psychiatry 24: (4) 1979

1980: Lowy, F.H. and Thornton, J.: To be or not to be a psychiatric chief resident: Factors in Selection. Canad. J. Psychiatry 25: 121-126, 1980

1981: Ban, T.A., Brown, W.T., Da Silva, T., Gagnon, M., Lamond, C.T., Lehmann, H.E., Lowy, F.H., Ruedy, J., Sellers, E.M.: Canad. Med. Assoc. J. 124: 1439-1446, 1981

1981: Lippmann, D.H., Lowy, F.H., and Rickhi, B.: Attitudes of Ontario Psychiatrists towards health insurance. Canad. Med. Assoc. J. 125: 167-170, 1980

1981: Voineskos, G., Greben, S.E., Lowy, F.H., Smith, F.L., and Steinhauer, P.D.: The psychiatric training of medical students. Canad. J. Psychiatry 26: 301-308, 1981

1984: Roncari, D.A.K., Salter, R.B., Till, J.R., and Lowy, F.H.: Is the clinician-scientist really vanishing? Encouraging results from a Canadian institute of medical science, Canad. Med. Assoc. J. 130: 977-979, 1984

C. In Other Journals and Periodicals

1972: Lowy, F.H.: The Psychiatrist-Physician Relationship in General Hospitals: Present and Future. Ontario Medical Review, 727-732, December 1972

1975: Berg, J.M., Lowy, F.H.: XYY Syndrome: A comment. Modern Medicine of Canada. 30: 8, 692-693, August, 1975

1979: Editorial Board - A Resident's Guide to Psychiatric Education M.G.G. Thompson (Ed) New York: Plenum Publishing, 1979

1979: Lowy, F.H.: The Neurosciences at the Clarke Institute of Psychiatry. Trends in Neuroscience. 2: X-XI, October, 1979

1981: Lowy, F.H.: The Future Physician: Labyrinth of Expectations. The Medical Graduate 26: 5-7, 1981

1981: Lowy, F.H.: The Dean's Challenge. University of Toronto Medical Journal, January 1982. pp 34-37

1982: Lowy, F.H.: The Alumni and the Faculty: Why Support Human Nutrition. The Medical Graduate 27: 4-5, 1982

1982: Lowy, F.H.: Preventing the Ultimate Epidemic, Re: Action (Canad. Mental Health Assoc.) Fall, 1982

1983: Lowy, F.H.: Psychotherapy in the 1980's POCA Press: 15: 13-19, 1983 (Psychiatric Outpatient Centres of America)

1983: Lowy, F.H.: The Faculty looks to the Alumni, The Medical Graduate 28, 4-5, 1983

1984: Lowy, F.H.: Towards Better Communication, Tablet (Fac. of Med, U. of T.) 1, 1-2, 1984

1985: Lowy, F.H. On Communication and Research, Tablet (Fac. of Med, U. of T.) Vol 1, No. 2, p 3

1985: Lowy, F.H. From Competence to the Pursuit of Excellence, Tablet (Faculty of Medicine, University of Toronto Vol 1, No. 3, p 2.

1985: Lowy, F.H. The 1985 Noble Peace Prize, Tablet (Faculty of Medicine, University of Toronto) Vol 1, No. 4, P 2.